



ARCHITECTURAL REVIEW BOARD MEETING

Thursday, July 27, 2023 at 7:00 PM

AGENDA

CALL TO ORDER.

DETERMINATION OF A QUORUM & PURPOSE STATEMENT.

APPROVAL OF MINUTES.

- [1.](#) October 27, 2022 ARB Minutes
- [2.](#) January 26, 2023 ARB Minutes
- [3.](#) May 25, 2023 ARB Minutes
- [4.](#) June 15, 2023 ARB Minutes

NEW BUSINESS.

- [5.](#) COA 23-48: 53 Menlough Drive
- [6.](#) COA 23-49: 34 North 4th Street
 - Applicant proposes to make alterations to DISH telecommunications equipment on existing Town of Warrenton water tank.
- [7.](#) COA 23-55: 41 Beckham Street
 - Applicant proposes to install painted and hanging signage on the building's exterior.
- [8.](#) Work Session: 226 E. Lee Street
 - Applicant proposes to convert existing frame barn into Accessory Dwelling Unit (ADU).

UPDATES.

BOARD MEMBERS TIME.

ADJOURN.



**ARCHITECTURAL REVIEW BOARD OF THE TOWN OF WARRENTON
TOWN HALL
21 MAIN STREET
WARRENTON, VIRGINIA 20186**

MINUTES

**A REGULAR MEETING OF THE ARCHITECTURAL REVIEW BOARD WAS HELD ON
October 27, 2022, AT 7:00 PM IN WARRENTON, VIRGINIA**

PRESENT Ms. Laura Bartee, Vice-Chair; Ms. Virginia Gerrish, Mr. John Thorsen, Ms. Karen Lavarway; Ms. Denise Harris, Planning Manager; Ms. Millie Latack, Preservation Planner

ABSENT Mr. Steve Wojcik, Chair

CALL TO ORDER AND DETERMINATION OF A QUORUM

The meeting called to order at 7:01 p.m., and a quorum was established. Ms. Bartee read the purpose statement.

APPROVAL OF MINUTES

August 25, 2022 meeting minutes

Ms. Gerrish requests corrections to the spelling of her name on pages 7-9.

Ms. Lavarway moves to approve minutes with proposed changes, Seconded by Mr. Thorsen.

Voting Yea: Vice Chair Bartee, Ms. Gerrish, Mr. Thorsen, Ms. Lavarway

Absent: Mr. Steve Wojcik, Chair

July 28, 2022 Meeting Minutes

Ms. Gerrish moves to approve minutes as presented, Seconded by Ms. Lavarway.

Voting Yea: Vice Chair Bartee, Ms. Gerrish, Mr. Thorsen, Ms. Lavarway

Absent: Mr. Steve Wojcik, Chair

NEW BUSINESS

COA 22-28 (152) Pre-Approval

Ms. Millie Latack presents a brief history of the application and proposed additional approval conditions.

Ms. Bartee asks for any discussion on COA 22-28.

Ms. Lavarney abstains.

No further discussion.

Ms. Gerrish moves to approve COA 22-28 with presented approval conditions, Seconded by Mr. Thorsen.

Voting Yea: Vice Chair Bartee, Ms. Gerrish, Mr. Thorsen

Abstained: Ms. Lavarney

Absent: Mr. Steve Wojcik, Chair

COA 22-27 Pre-Approval

Ms. Latack provides a brief presentation on the application.

Ms. Bartee asks for any discussion on COA 22-27.

Ms. Lavarney moves to approve COA 22-27 with presented conditions, Seconded by Mr. Thorsen.

Voting Yea: Vice Chair Bartee, Mr. Thorsen, Ms. Lavarney

Voting Nea: Ms. Gerrish

Absent: Mr. Steve Wojcik, Chair

COA 22-30 178 Main Street

Ms. Bartee introduces the application to the Board.

Ms. Latack provides a brief description of the application.

Ms. Bartee asks if the applicant Mr. Keith Selbo would like to come forward to answer questions from the Board.

Ms. Gerrish asks about the reasoning behind the proposed locations of the solar panels.

Mr. Selbo responds briefly explaining the reasoning provided by the two consulted installation companies.

Ms. Gerrish speaks on the nature of the application and the role of the Board while reviewing applications.

Mr. Selbo speaks on the proposed work and modifications to historic houses to keep pace with modern technology.

Ms. Bartee asks about possibility of moving the location of some of the panels.

Mr. Selbo responds providing answers where possible.

Mr. Thorsen ask further questions about moving or adjusting the location of the solar

panels and expresses his disagreement with the visibility of the proposed placement and visibility of some panels.

Mr. Selbo responds providing answers where possible.

Ms. Gerrish respectfully disagrees with Mr. Thorsen on several points.

Ms. Bartee speaks to the comments and points from the previous discussion and viewpoints.

Mr. Selbo speaks on the preservation of the house and work to update it while preserving it.

Ms. Bartee asks about the possibility of lower visibility options.

Mr. Selbo responds discussing his conversations with the Contractors.

Ms. Lavarway asks about positioning the panels in question on the rear lower roof.

Mr. Selbo responds.

Ms. Latack comments on the contractor's absence and possible motions.

The Board discusses the application and possible paths forward.

Ms. Bartee asks for a Motion.

The Board discusses the application further.

Ms. Bartee asks the applicant if he would like to postpone the decision to consult with the contractors for other options.

Mr. Selbo declines.

Ms. Bartee again asks for a motion.

Ms. Lavarway moves to deny COA 22-30, Seconded by Mr. Thorsen.

Voting Yea: Vice Chair Bartee, Mr. Thorsen, Ms. Lavarway

Voting Nea: Ms. Gerrish

Absent: Mr. Steve Wojcik, Chair

COA 22-31 92 Main Street

Ms. Bartee introduces the application to the Board.

Ms. Latack provides a brief description of the application.

The Board briefly discusses the application with staff.

Ms. Bartee asks for a motion.

Ms. Gerrish moves to approve COA 22-31, Seconded by Ms. Lavarway

Voting Yea: Vice Chair Bartee, Mr. Thorsen, Ms. Lavarney, Ms. Gerrish
Voting Nea:

Absent: Mr. Steve Wojcik, Chair

COA 22-35 22 Fisher Lane

Ms. Bartee introduces the application to the Board.

Ms. Latack provides a brief description of the application.

Ms. Bartee invites the applicant forward.

Mr. Justin Basile comes forward to speak for the applicant.

Mr. Basile speaks on the nature of the work being done and materials used.

Ms. Gerrish asks about the proposed lighting.

Mr. Basile responds outlining reasoning for change.

Mr. Thorsen asks about the portico ceiling.

Mr. Basile responds.

Ms. Gerrish asks about the Hardie plank.

Mr. Basile responds.

Ms. Bartee asks about the window material and style being used.

Mr. Basile responds.

Ms. Bartee moves the discussion to the proposed railings.

Mr. Basile responds away from his microphone, response mostly inaudible.

Mr. Thorsen asks about use of composite materials.

Mr. Basile responds.

The Board discusses the proposed door replacement with Mr. Basile.

Mr. Thorsen asks about the scope of the window replacement.

Mr. Basile responds.

Ms. Bartee comments on the arch being removed and proposed screened porch.

The Board moves the discussion back to the proposed door replacement and possibility of repair or replacement in-kind.

Mr. Basile responds to the questions about the door and the comment on the arch.

Ms. Bartee asks a motion.

Ms. Gerrish moves to approve COA 22-35, Seconded by Ms. Lavarney

Voting Yea: Vice Chair Bartee, Mr. Thorsen, Ms. Lavarney, Ms. Gerrish

Voting Nea:

Absent: Mr. Steve Wojcik, Chair

UPDATES

Ms. Latack provides the Board with a brief overview of meeting schedules for the next two months and upcoming reappointments and elections.

BOARD MEMBERS TIME

Ms. Gerrish discusses a recently attended masonry workshop through Preservation Virginia.

Ms. Lavarney shares photos of a recent house fire with the Board. Prompting a discussion on materials used, fire code, solar panels, and aspects of reviewed cases.

ADJOURN

Ms. Lavarney moved to adjourn. Ms. Gerrish seconded. All in favor, no discussion.

Voting Yea: Vice Chair Bartee, Mr. Thorsen, Ms. Lavarney, Ms. Gerrish

Voting Nea:

Absent: Mr. Steve Wojcik, Chair

With no further business, this meeting was adjourned at 8:34 PM.



**ARCHITECTURAL REVIEW BOARD OF THE TOWN OF WARRENTON
TOWN HALL
21 MAIN STREET
WARRENTON, VIRGINIA 20186**

MINUTES

**A REGULAR MEETING OF THE ARCHITECTURAL REVIEW BOARD WAS HELD ON
January 26, 2023, AT 7:00 PM IN WARRENTON, VIRGINIA**

PRESENT Mr. Steve Wojcik, Chair; Ms. Laura Bartee, Vice-Chair; Ms. Virginia Gerrish, Ms. Karen Lavarney; Ms. Denise Harris, Planning Manager;
ABSENT Mr. John Thorsen

CALL TO ORDER AND DETERMINATION OF A QUORUM

The meeting called to order at 7:00 p.m., and a quorum was established. Ms. Bartee read the purpose statement.

Board Elections

Election of Chair

Mr. Wojcik moves to nominate Ms. Bartee for the position of Chair.

Ms. Lavarney seconds the motion.

No further discussion

Voting Yea: Mr. Wojcik, Chair; Ms. Bartee, Vice-Chair; Ms. Gerrish; Ms. Lavarney

Absent: Mr. Thorsen

Election of Vice-Chair

Mr. Wojcik moves to nominate Ms. Gerrish for the position of Vice-Chair.

Ms. Lavarney seconds the motion.

No further discussion

Voting Yea: Mr. Wojcik, Chair; Ms. Bartee, Vice-Chair; Ms. Gerrish; Ms. Lavarway

Absent: Mr. Thorsen

NEW BUSINESS

COA 22-42 102 Winchester Street

Ms. Lavarway recuses herself from the review of COA 22-42.

Ms. Harris provides a brief overview of the application.

Ms. Bartee invites the applicant forward to speak.

Ms. Lavarway, applicant, speaks provides a history and details of the application.

Ms. Bartee opens the floor to discussion.

Ms. Gerrish briefly comments on the location and installation method of the slide.

Mr. Wojcik briefly speaks his thoughts on the slide.

Ms. Bartee briefly speaks her thoughts on the slide.

Ms. Bartee asks the Board for a motion.

Ms. Gerrish moves to approve COA 22-42 with presented approval conditions,
Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik

Abstained: Ms. Lavarway

Absent: Mr. Thorsen

COA 22-43 92 Winchester Street

Ms. Harris provides a brief presentation on the application.

Mr. Keith Macdonald, Applicant, comes forward to speak on his application.

Mr. Macdonald asks for an adjustment to the proposed conditions.

Ms. Bartee briefly discusses potential hardware with the applicant.

Ms. Gerrish asks the applicant about the proposed finish for the gate.

Mr. Macdonald responds outlining proposed finish.

Ms. Gerrish returns discussion to the gate hardware.

Mr. Macdonald briefly outlines possible design options.

Mr. Wojcik asks about the posts supporting the gate.

Mr. Macdonald responds discussing possible finished states of the posts.

Mr. Wojcik discusses with the applicant the height of the proposed gate.

Mr. Macdonald briefly speaks his thoughts on current building codes and design philosophies.

Mr. Wojcik asks if a condition needs to be added regarding the posts.

The Board, applicant, and Staff discuss the approval conditions for the proposed motion.

Mr. Wojcik moves to approve COA 22-43 with presented conditions, Seconded by Ms. Gerrish.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik

Voting Nea: Ms. Lavarney

Absent: Mr. Thorsen

COA 22-44 10 Menlough Drive

Ms. Bartee introduces the application to the Board.

Ms. Harris provides a brief description of the application.

Mr. Kyle Walker, Applicant, describes the nature of the proposed work.

Ms. Bartee opens the floor to discussion.

Ms. Bartee briefly comments on the design of the proposed work.

Ms. Harris and the Board briefly discuss the proposed approval conditions.

Ms. Bartee asks the Board for a motion.

Ms. Lavarney moves to approve COA 22-44 with presented conditions, Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-01 75 S. Third Street

Ms. Bartee introduces the application to the Board.

Ms. Harris provides a brief description of the application.

Mr. Jim Madaj, Applicant, provides a detailed description of the proposed work.

Ms. Bartee opens the floor to discussion.

Ms. Gerrish asks about the height of proposed rear doors.

Mr. Madaj responds outlining height of doors and potential phase two plans.

Mr. Wojcik asks about the number of rear doors.

Mr. Madaj responds providing further information about the rear doors.

Mr. Wojcik asks about the third rear doorway.

Mr. Madaj responds.

Ms. Gerrish asks about rear signage locations.

Mr. Madaj responds detailing the proposed signage location and existing site condition.

Ms. Bartee asks about the brand and material of the doors.

Mr. Madaj responds providing the manufacturer information.

Ms. Bartee asks for further information about proposed railings.

Mr. Madaj details proposed railing design.

Mr. Wojcik asks about the status of on the side of the building.

Mr. Madaj outlines status of windows in question and possible future changes.

Ms. Bartee asks about what is taking the place of removed window AC unit.

Mr. Madaj describes the window installed to replace removed window AC unit.

Mr. Madaj and the Board discuss plans for use of the space.

Ms. Harris and the Board briefly discuss the proposed approval conditions.

Ms. Bartee asks the Board for a motion.

Mr. Wojcik moves to approve COA 23-01 with presented conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney
Absent: Mr. Thorsen

UNFINISHED BUSINESS

COA 22-152 11 S Second Street

Ms. Harris provides a brief overview of the application.

The Board reviews current photos of already approved work to determine scale and materials used.

Ms. Harris and the Board discuss previously approved conditions and previously removed proposed approval conditions.

Ms. Bartee asks the board for questions on the proposed amendment. No questions.

Ms. Bartee asks about the status of the siding.

Ms. Harris responds, response inaudible.

Ms. Bartee and the Board discuss former approval condition 18.

The Board discusses the re-addition of approval conditions 18 and 19.

Mr. Wojcik moves to approve the amended application for COA 2022-152 (22-28) with presented approval conditions, Seconded by Ms. Gerrish.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik

Abstained: Ms. Lavarney

Absent: Mr. Thorsen

UPDATES

Adoption of Calendar 2023

Ms. Harris presents the matter to the Board.

Ms. Bartee asks about adjusting meeting times.

Ms. Gerrish asks for some clarification from staff.

The Board briefly discuss potential meeting times.

Ms. Bartee asks for a motion.

Ms. Lavarney motions to combine the November and December meetings to December 7th and adopt the other dates as listed. Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

BOARD MEMBERS TIME

Mr. Wojcik asks staff about actions that can be taken or explored regarding the preservation of Alwington Manor.

The Board and staff have a brief discussion on steps that could be taken and registration of historic building.

Ms. Lavarney asks about personal email usage for ARB communications.

ADJOURN

Ms. Lavarney moved to adjourn. Mr. Wojcik seconded. All in favor, no discussion.

Voting Yea: Ms. Laura Bartee, Chair; Ms. Virginia Gerrish, Vice-Chair; Ms. Karen Lavarney; Mr. Steve Wojcik

Voting Nea:

Absent: Mr. John Thorsen

With no further business, this meeting was adjourned at 8:50 PM.

DRAFT



**ARCHITECTURAL REVIEW BOARD OF THE TOWN OF WARRENTON
TOWN HALL
21 MAIN STREET
WARRENTON, VIRGINIA 20186**

MINUTES

A REGULAR MEETING OF THE ARCHITECTURAL REVIEW BOARD WAS HELD ON MAY 25, 2023, AT 7:00 PM IN WARRENTON, VIRGINIA

PRESENT Ms. Laura Bartee, Chair; Ms. Virginia Gerrish, Vice-Chair; Mr. Steve Wojcik; Ms. Karen Lavarney; Ms. Denise Harris, Planning Manager; Ms. Casey Squyres, Historic Preservation Planner

ABSENT Mr. John Thorsen

CALL TO ORDER AND DETERMINATION OF A QUORUM

The meeting was called to order at 7:00 p.m., and a quorum was established. Ms. Bartee read the purpose statement.

APPROVAL OF MINUTES

Draft Minutes- April 27, 2023

The Board has no comments.

Ms. Gerrish motions to approve the minutes for April 27, 2023, as presented. Mr. Wojcik Seconded. All in favor.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

NEW BUSINESS

COA 23-30 11 SOUTH SECOND STREET

Ms. Squyres provides a brief overview of the application.

Mr. Alex Aparo, applicant, comes forward to speak.

Mr. Aparo elaborates on the application.

Ms. Bartee indicates some of the potential issues visible in existing site photos.

Ms. Lavarney asks about the location of the proposed future deck and fencing in relation to the structure.

Mr. Aparo responds briefly outlining the location of proposed future deck and fencing.

Ms. Bartee asks for clarification of proposed fencing.

Mr. Aparo clarifies the placement and reasons for the proposed fencing.

Mr. Wojcik points to several of the potential issues and concerns for future damage to the building caused by the issues.

Mr. Aparo provides details of the structure in question and details of the lease agreement with the owner.

Ms. Bartee recommends corrective actions for the roof.

Mr. Aparo responds, acknowledging the suggestions.

Ms. Bartee Opens the floor to questions on the a-frame signage.

Ms. Gerrish and Mr. Aparo discuss the composition of the a-frame sign.

Mr. Aparo asks about the use of a logo sticker on a-frame sign.

Ms. Gerrish responds in the affirmative and suggests looking at other local signs for inspiration.

The Board discuss approval conditions.

Mr. Wojcik moves to approve COA 23-30 with presented approval conditions, Seconded by Ms. Gerrish.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik

Abstain: Ms. Lavarney

Absent: Mr. Thorsen

COA 23-31 102 WINCHESTER STREET

Ms. Squyres provides a brief overview of the application.

Mr. Joe Ficarelli, applicant, comes forward to speak.

Mr. Ficarelli provides further details on the work and history of the project.

Ms. Bartee asks for further details on the railing material and design.

Mr. Ficarelli provides further details.

Ms. Bartee asks about the scope of replacement planned.

Mr. Ficarelli responds by outlining planned work.

Ms. Bartee discusses rot prevention with the applicant.

Ms. Bartee asks for further comments.

The board briefly discusses approval conditions.

Ms. Bartee asks the Board for a motion.

Ms. Gerrish moves to approve COA 23-31 with the presented approval conditions, Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik;

Abstain: Ms. Lavarnway

Absent: Mr. Thorsen

COA 23-33 9 SOUTH SIXTH STREET

Ms. Squyres provides a brief overview of the application.

Ms. Mary Robin Bachetti, Homeowner, comes forward to speak.

Ms. Bachetti provides further history and details of the project.

Ms. Bartee recommends potential changes to the gutter layout.

Ms. Gerrish comments on the recommended gutter changes and proposed roof material.

Mr. Wojcik asks if the proposed roof will have a ridge cap.

Ms. Bachetti responds that she is unsure.

Mr. Wojcik asks about plans to replace the flashing around the chimney.

Ms. Bartee moves the discussion to the approval conditions.

Mr. Wojcik proposes a change to the gutter layout again.

Ms. Bachetti briefly explains the reasons for the existing gutter layout.

The Board reiterates their recommendation to change the gutter layout.

Mr. Wojcik and Ms. Gerrish ask if the proposed material can be hand crimped onsite.

Ms. Bachetti responds with what information she has.

Ms. Squyres directs The Boards attention to the proposed approval conditions.

Mr. Wojcik stresses the style of roofing should be in character with historical materials.

Ms. Bachetti expresses her preference for galvanized metal roofing.

Ms. Squyres outlines a section of the proposed approval conditions and conversation with the contractor.

The Board and staff discuss the proposed approval conditions.

Ms. Lavarney moves to approve COA 23-33 with the presented approval conditions, Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Voting Nay:

Absent: Mr. Thorsen

COA 23-35 75 MAIN STREET

Ms. Squyres provides a brief overview of the application.

Mr. Joe Gallagher, applicant, comes forward to speak.

Mr. Gallagher provides further details of the application.

Ms. Bartee expresses her appreciation of the proposed signs design and material.

Ms. Gerrish asks for confirmation that the sign will be painted.

Mr. Gallagher responds in the affirmative.

Ms. Lavarney asks if lettering will be glued or carved.

Ms. Gallagher responds Sign will be carved single piece.

Ms. Bartee asks the Board for a motion.

Mr. Wojcik moves to approve COA 23-35 with the presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-37 16 SOUTH FIFTH STREET

Ms. Squyres provides a brief overview of the application.

Ms. Me Jung Jung, applicant, is not present to speak.

Ms. Lavarney asks if the sign will be weighted.

Ms. Squyres responds that it can be added as a condition.

Ms. Bartee asks about the materials of the sign expressing concerns that the sign will fade.

Ms. Squyres responds that the requested information was not provided.

The Board briefly discusses proposed approval conditions.

Ms. Bartee asks the Board for a motion.

Ms. Gerrish moves approve COA 23-37 with the presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-39 73 EAST LEE STREET

Ms. Squyres provides a brief overview of the application.

Ms. Ednida Minor, applicant, is not present to speak.

Mr. Wojcik asks for clarification on the address associated with the permit.

Ms. Squyres provides clarification.

Ms. Gerrish asks about the footers and mortar for the retaining wall.

Ms. Squyres provides the requested information.

Ms. Bartee discusses with Staff the proposed motion.

Ms. Bartee asks the Board for a motion.

Ms. Lavarney moves approve COA 23-36 with the presented approval conditions, Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-39 111 JOHN E. MANN STREET

Ms. Squyres provides a brief overview of the application.

Mr. Roy Francis, applicant's representative, comes forward to speak.

Mr. Francis provides greater detail for the application.

Ms. Bartee asks for clarification on the proposed color.

Mr. Francis responds, outlining the struggle obtaining materials.

Mr. Wojcik asks for clarification on the style of proposed roofing material.

Mr. Francis responds explaining the style of proposed material.

The Board briefly discusses the style of the proposed roof.

Ms. Squyres looks up examples of the proposed roofing for the board.

The Board continues discussing the style of the proposed roof.

Ms. Bartee asks about deferral of the application until better samples can be provided.

Mr. Francis responds that it is possible.

Mr. Wojcik asks about the window to complete the work.

Mr. Francis responds by providing the timeframe.

The application is deferred until better samples can be provided.

WORK SESSION

206 CULPEPER STREET

Ms. Squyres presents the details of the proposed work.

Ms. Bartee, applicant, comes forward to speak.

Ms. Bartee provides further details on the application.

Ms. Lavarney asks for clarification on the proposed living area.

Ms. Bartee responds walking the Board through the proposed plans.

Ms. Gerrish asks if the proposed plans meet setback requirements.

Ms. Bartee responds indicating setbacks marked on the proposed plans.

Mr. Wojcik recommends an elevation change to the roof pitch on one side of the proposed project.

Ms. Bartee responds outlining reasons for the roof pitch and steps being taken to mitigate its visibility.

Mr. Wojcik asks about the reason for the work session as opposed to a full application.

Ms. Bartee responds outlining reasons for the work session.

Ms. Lavarney asks about the material used for the garage doors.

Ms. Bartee responds providing proposed door materials.

Ms. Gerrish asks about the color of the proposed brick work.

Ms. Bartee provides the details of the proposed brick work doors and lighting.

Mr. Wojcik asks about any required tree removal.

Ms. Squyres responds with requested information.

Ms. Bartee provides further information on the changes to the existing porch.

Ms. Gerrish asks about changes to the existing HVAC unit.

Ms. Bartee responds that she is unsure if changes will need to occur.

Mr. Wojcik asks if changes will be made to the existing exterior access stairwell for the basement.

Ms. Bartee responds by indicating that no changes will need to occur.

Ms. Gerrish asks for clarification on a portion of the proposed plans.

Ms. Bartee provides clarification on the indicated section of the plans.

Ms. Gerrish asks for any more questions from The Board.

Mr. Wojcik returns the conversation to the asymmetrical roof pitch asking for suggestions or recommendations.

Ms. Bartee responds discussing potential options with The Board.

Ms. Bartee reiterates changes to the asymmetrical roof pitch.

Ms. Gerrish asks about the tree cover added to the side of the home.

Ms. Bartee responds outlining existing trees and potential additions.

UPDATES

No Updates

BOARD MEMBERS TIME

Mr. Wojcik asks if there have been any updates on Alwington Manor.

Ms. Squyres provides available details.

Ms. Harris updates The Board regarding RFP status, upcoming public meeting, and potential changes to June meeting date.

Ms. Bartee advises that she may be unavailable on potential meeting dates and asks for more information on the RFP.

Ms. Harris outlines the purpose of the RFP.

The Board and Staff discuss proposed meeting dates.

Ms. Bartee details the available information on the Towns purchase of the Warrenton Horseshow Grounds and getting it listed on the historic registry.

ADJOURN

Mr. Wojcik moved to adjourn. Ms. Lavarney seconded. All in favor, no discussion.

Voting Yea: Ms. Laura Bartee, Chair; Ms. Virginia Gerrish, Vice-Chair; Mr. Steve Wojcik; Ms. Karen Lavarney

Absent: Mr. John Thorsen

With no further business, this meeting was adjourned at 9:31 PM.

DRAFT



**ARCHITECTURAL REVIEW BOARD OF THE TOWN OF WARRENTON
TOWN HALL
21 MAIN STREET
WARRENTON, VIRGINIA 20186**

MINUTES

A REGULAR MEETING OF THE ARCHITECTURAL REVIEW BOARD WAS HELD ON JUNE 16, 2023, AT 7:00 PM IN WARRENTON, VIRGINIA

PRESENT Ms. Laura Bartee, Chair; Ms. Virginia Gerrish, Vice-Chair; Mr. Steve Wojcik; Ms. Karen Lavarnway; Ms. Denise Harris, Planning Manager; Ms. Casey Squyres, Historic Preservation Planner

ABSENT Mr. John Thorsen

CALL TO ORDER AND DETERMINATION OF A QUORUM

The meeting was called to order at 7:00 p.m., and a quorum was established. Ms. Gerrish read the purpose statement.

NEW BUSINESS

COA 23-38 63 MAIN STREET

Ms. Squyres provides a brief overview of the application.

Mr. Mitchell White, applicant, is not present to speak.

Ms. Bartee indicates some of the potential issues visible in existing site photos.

Ms. Gerrish asks about potential substitutes to proposed plants.

Ms. Squyres provides what information is available.

Ms. Gerrish asks for any further questions.

No further questions from the Board

Ms. Gerrish asks the Board for a motion.

Mr. Wojcik moves to approve COA 23-38 with presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Abstain: Ms. Bartee, Chair

Absent: Mr. Thorsen

COA 23-40 63 MAIN STREET

Ms. Squyres provides a brief overview of the application.

Mr. Mitchell White, applicant, is not present to speak.

Ms. Gerrish requests to see the full front of the building showing both window and door signage.

Ms. Squyres accommodates the request.

Ms. Wojcik asks about the size of the signage.

Ms. Squyres responds outlining previous discussions with the applicant.

Ms. Bartee asks for a motion.

Ms. Gerrish moves to approve COA 23-40 with the presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-42 15 SOUTH THIRD STREET

Ms. Squyres provides a brief overview of the application.

Mr. Bob Moore, applicant, comes forward to speak.

Mr. Moore provides further information on the proposed plans.

Ms. Bartee asks for questions or comments from the Board.

Mr. Wojcik asks about the proposed roofing material.

Mr. Moore responds that roofing will be in kind with existing roof.

Mr. Wojcik speaks audio inaudible.

Mr. Moore provides a photo of the existing roof.

Mr. Wojcik and Mr. Moor speak about the proposed roof, audio mostly inaudible.

Ms. Gerrish asks about using brick to expand the patio.

Mr. Moore responds outlining future plans.

Ms. Gerrish asks about the positioning of the posts.

Mr. Moore responds, outlining issues due to easement and positioning of posts and seating.

Ms. Bartee comments on the proposed design and suggests ways to tie in the columns.

Ms. Lavarney asks about the visibility of the fabric enclosure when raised.

Mr. Moore responds outlining planned use of fascia board.

Ms. Bartee discusses the material used for the fascia board with Mr. Moore.

Ms. Lavarney asks a question audio mostly inaudible.

Mr. Moore responds audio mostly inaudible.

Ms. Bartee discusses proposed approval conditions with the Board.

Mr. Wojcik asks about the access point for the patio.

Mr. Moore responds indication rear door, audio mostly inaudible.

Ms. Bartee asks about dining service on the patio.

Mr. Moore responds outlining potential service, audio mostly inaudible.

The Board and staff discuss the proposed approval conditions.

Ms. Lavarney moves to approve COA 23-42 with the presented approval conditions, Seconded by Mr. Wojcik.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Voting Nay:

Absent: Mr. Thorsen

COA 23-43 2 COURT HOUSE SQUARE

Ms. Squyres provides a brief overview of the application.

Mr. John Swain, applicant, is not present to speak.

Mr. Wojcik speaks, audio mostly inaudible.

Ms. Bartee comments on the need for the trees to be trimmed and the damage to structure did not appear to be from the trees.

Ms. Gerrish also comments that the trees did not appear to be the cause of the damage.

Ms. Squyres asks Ms. Harris if a motion needs to be made.

Ms. Harris responds in the affirmative.

Ms. Bartee asks the Board for a motion.

Ms. Gerrish moves to deny COA 23-43 for the presented conditions, Seconded by Mr. Wojcik.

Voting Yea:

Voting Nay: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

COA 23-45 206 CULPEPER STREET

Ms. Squyres provides a brief overview of the application.

Ms. Laura Bartee, applicant, comes forward to speak.

Ms. Bartee details changes to the application since the May work session.

Ms. Gerrish comments that she does not have any concerns.

Ms. Bartee discusses general design elements of the project.

Ms. Gerrish asks for further details regarding the garage doors.

Ms. Bartee details materials for the garage doors.

Mr. Wojcik moves approve COA 23-43 with the presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Abstained: Ms. Bartee, Chair

Absent: Mr. Thorsen

COA 23-47 63 MAIN STREET

Ms. Squyres provides a brief overview of the application.

Mr. Mitchell White, applicant, is not present to speak.

Ms. Lavarney asks if a-frame signage must be weighted.

Ms. Squyres answers in the affirmative.

Ms. Bartee asks the Board for a motion.

Ms. Gerrish moves approve COA 23-47 with the presented approval conditions, Seconded by Ms. Lavarney.

Voting Yea: Ms. Bartee, Chair; Ms. Gerrish, Vice-Chair; Mr. Wojcik; Ms. Lavarney

Absent: Mr. Thorsen

UPDATES

Ms. Harris informs the Board about the proposed Town arts group.

The Board and Staff spend some time discussing some of the proposed art.

BOARD MEMBERS TIME

Ms. Gerrish mentions painted flowers on a wall at 9 N. 3rd St.

Ms. Bartee discusses with the Board and Staff the process for out-of-meeting approvals.

Ms. Bartee discusses with the Board potential changes to the zoning ordinance.

Ms. Bartee mentions the roof on 101 Winchester Street.

Mr. Wojcik brings up an older home on Falmouth Street in need of work, and changes to the historic character features.

Ms. Harris updates the Board on the survey of the local historic district.

Ms. Lavarney mentions an interaction with a local business owner regarding a-frame signs.

Ms. Lavarney also mentions that she put in her candidacy for Town Council.

ADJOURN

Mr. Wojcik moved to adjourn. Ms. Gerrish seconded. All in favor, no discussion.

Voting Yea: Ms. Laura Bartee, Chair; Ms. Virginia Gerrish, Vice-Chair; Mr. Steve Wojcik; Ms. Karen Lavarney

Absent: Mr. John Thorsen

With no further business, this meeting was adjourned at 8:47 PM.



Community Development
Department

STAFF REPORT

Meeting Date:	July 27, 2023
Agenda Title:	COA 23-48 – 53 Menlough Drive
Requested Action:	Review proposal for the request to install a three-board paddock style fence and gates in the back yard.
Department / Agency Lead:	Community Development
Staff Lead:	Casey Squyres

EXECUTIVE SUMMARY

The applicant is proposing to install a pressure-treated, three-board paddock-style fence with black wire in the back yard.

- 1) The fence will be approximately 140' in total length with two gates and 4' in height.
- 2) All posts will be set in dry-packed concrete 24"-30" in depth.

BACKGROUND

This resource is a modern dwelling located within the boundaries of the local historic district. As a stand-alone resource, it falls outside the period of significance and does not contribute to the district.



DESIGN GUIDELINE CONSIDERATIONS

Historic District Guideline	Page No.	Analysis
B. FENCES & WALLS		
2. New fences and walls should not exceed six feet in height, or the maximum allowed by the zoning district regulations.	3.8	The applicant has confirmed that the fence will be no more than 4' in height.
4. For wooden stockade fences, avoid simplicity. Design with architectural details such as capped posts, pointed or shaped boards, varied board heights, or scalloped sections, for example. The rails should face the interior lot. Pressure treated lumber is acceptable but stained or painted is recommended.	3.8	The proposed fence will be located in the rear yard and will connect to a preexisting fence-line. Pressure-treated lumber will be utilized in this case.

STAFF RECOMMENDATION

Staff recommends approval of the request to install a three-board paddock style fence in the back yard, as described and depicted within the application, provided the following conditions are met:

- 1) All necessary permits are acquired.

ATTACHMENTS

1. Attachment 1 - Photos
2. Attachment 2 - Draft Motion Sheet

Date: 05/21/2023 Job Number: _____ County: Town of Warrenton
 Name: Cynthia Axell
 Address: 53 Menlough Dr.
 City: Warrenton State: Va. Zip: 20186
 Job Site Address: Same
 Home Phone: 707 481-0650 Cell Phone: _____
 Email: h20av8tricks@aol.com
 Project Description (Goods and Services Sold):

140' of 4' high Pressure Treated 3-BOARD Paddock W/ 1X2 BLACK WIRE Fencing Including One 48" high x 48" wide single gate and One 48" high x 8" wide double gate. Posts are 4x4 PTP with black caps. Gate posts are 6x6 PTP with black caps. Horizontal boards are 1x6 PTP - Face out Wire is stapled to the inside. Additional wire to be stapled to the existing fence Gates are paddock style with wire on the inside. All posts are set in dry-packed concrete 24"-30" in the earth or until refusal. All materials are #2 southern yellow pine (pressure treated) unless otherwise stated. All nails are galvanized ring shank unless otherwise stated Homeowner responsible for obtaining any required building/zoning permits. Homeowner is responsible for any required HOA approvals Homeowner is responsible for the fence layout and location.

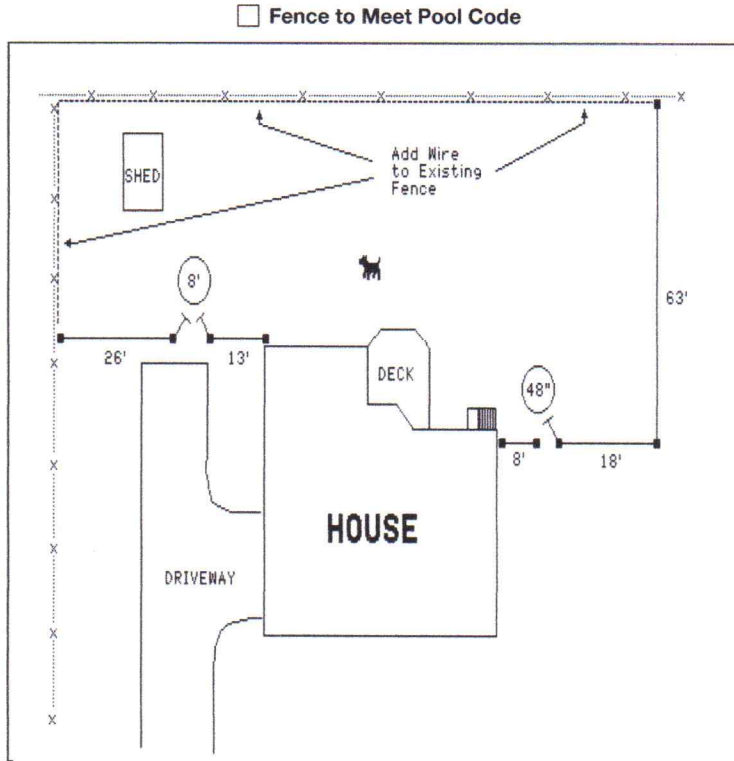
Builders Fence Company is not responsible for damage to private utilities, irrigation systems or underground drainage systems.

Job Notes:

List Price = \$ 4,929.32 Less 15% Discount = \$ 4,189.92

Total Contract Price: \$ 4189.92
(Price valid for 15 Days)
 Deposit: \$ 20.94
 Due Upon Substantial Completion: \$ 4168.98
 Estimated Start Date: 4 weeks
 Estimated Completion Date: 1 - 2 days

The projected dates are contingent upon obtaining approved financing, permits, H.O.A., an other conditions beyond Seller's control.



- Grade**
- Level at Top Fence to be level with highest grade. (Customer to fill in gaps)
 - Following Grade Fence following flow of ground. (Fence will be uneven at top)
 - Step and Level Each section to step as dictated by the grade. May result in large gaps under the fence. (Customer to fill in gaps)
- Toe Nail Face Nail

Customer agrees to pay the Total Price for such materials and labor, pursuant to the Payment Terms provided at left. All materials are to be #2 pressure treated southern yellow pine unless otherwise stated. Interest at the rate of 2% per month will accrue on all past due accounts. Builders Fence Company will not accept out of state checks.

BUYERS RIGHT TO CANCEL: If this agreement was solicited at a residence and you do not want the goods or services, you the buyer, may cancel this transaction at any time prior to midnight of the third business day after the date of this transaction. See Notice of Cancellation for an explanation of this right.

Acceptance: The construction proposal contained herein, including the specified price, payment terms, construction specifications, and other terms and conditions on the reverse side of this contract, is hereby ACCEPTED.

Builders Fence Company

 (Authorized Representative's Signature)
Jeffrey A. Cederborg
 Authorized Representative's Printed Name

Buyer(s)

 (Signature) 21 JUNE 2023
 Date

 (Signature) Date



TERMS AND CONDITIONS

- 1. Agreement.** This Contract constitutes the entire agreement between Builders Fence Company ("Contractor") and Customer and supersedes all prior discussions, proposals or agreements by and between the parties. Modifications to the terms of this Contract shall only be enforceable if in writing, signed by both parties. Changes to the Construction Specifications and/or price after execution of this Contract shall require a written change order signed by both parties, except as expressly provided for herein. Customer represents and warrants that he/she/they are the owners of the real property identified on the front page of this Contract, upon which the Project shall be constructed, and that they are authorized to enter into this Contract for the improvements described herein.
- 2. Cancellation.** Either party may cancel this Contract without charge or obligation within seventy-two (72) hours after execution (the "Rescission Period") and all amounts paid by Customer to Contractor shall be promptly refunded. No work on the project will begin until after the expiration of the Rescission Period. If Customer cancels this Contract after the expiration of the Rescission Period but before construction begins, Contractor shall be entitled to retain the deposit provided for on page 1 this contract, plus all costs incurred by Contractor prior to Contractor receiving written notice of cancellation from Customer. Once work on the Project has begun, this Contract may not be cancelled, and Customer shall be responsible for the Total Price, even if Customer elects not to have the Project completed. The amounts to be paid or retained by Contractor under this Section shall be deemed liquidated damages, to compensate Contractor for the expenses, lost profits and other amounts incurred, and not as a penalty or forfeiture.
- 3. Site Access, Condition and Restoration.** Customer shall provide Contractor with adequate access to the Project site and all utilities needed to complete the Project. Customer shall be responsible for clearing the entire Project site (including, without limitation, both sides of the proposed fence line, if applicable) of all materials, brush, debris and timbers used to hold back the soil prior to the Estimated Start Date. The Total Price does not include any clearing and any such work shall be billed and paid by Customer at the rate of One Hundred Dollars (\$100.00) per hour. The Total Price assumes that no rock, boulder or other obstructions shall be encountered and that the soils will be of sufficient quality to allow for normal installation processes to be utilized. Customer shall be responsible for all additional labor, materials and equipment required to remove any rock, boulders or other obstructions or to provide such additional foundations for the Project as may be required due to soil conditions. All dirt and other excavated materials shall remain on the Project site and Customer shall be responsible for removing such materials unless otherwise specified herein. Contractor assumes no responsibility for damage to any yard features or landscaping that is moved, disturbed or destroyed during the course of construction. Contractor shall have no obligation to repair or replace yard features, or to reseed or sod the yard. Customer shall be responsible for backfilling any gaps located at the bottom of the fence due to variations in grade.
- 4. Fence Location and Property Boundaries.** Customer bears sole responsibility for the location of the fence. Contractor is not responsible for determining property lines, boundaries, set-backs or easements and is not responsible for any costs associated with removing or replacing any fence that is deemed to be built outside of the property boundaries or found to encroach within set-backs or easements.
- 5. Project Completion and Acceptance.** The Project shall be deemed completed upon the Contractor's delivery of a Completion and Acceptance Notice which is attached to the invoice. The Project shall be deemed completed by Contractor and accepted by Customer, unless, within five (5) days after delivery of Completion and Acceptance Notice, Customer notifies Contractor in writing of Customer's non-acceptance and the reasons for such non-acceptance.
- 6. Permits and Approvals.** Customer shall be responsible for applying for and obtaining any and all required county or other local government permits, approvals and inspections, Home Owners Association approvals, copies of plat, and signed documents required for permits and other applications, except for any permits, approvals and inspections that are required by law to be requested by or in the name of Contractor or as otherwise specifically provided for herein.
- 7. Locating of Utilities.** Contractor shall be responsible for contacting Miss Utility to identify all participating public underground utilities. Customer shall be responsible for locating all non-participating public utilities and all private underground utilities and systems, such as plumbing (including septic systems and lines), gas lines, cable lines, sprinkler systems, lines and components and wiring. Contractor shall not be responsible for any damage to or the cost of repairing utilities or systems that are not properly marked or identified and Customer shall indemnify and hold Contractor harmless for and from any such costs or damages incurred by Contractor or any third-party as a result of such improper marking or identification.
- 8. Delays.** The Estimated Completion Date represents Contractor's best estimate of the time it will take to complete the Project absent any weather delays, interruptions in labor or material supplies, Acts of God, differing site conditions, payment or other defaults by Customer or other unforeseen circumstances. Accordingly, Contractor does not guarantee that the Project will be completed by the Estimated Completion Date, and shall not be responsible for any delays in completing the Project. In addition, the Total Price assumes and is based upon the uninterrupted construction of the Project. In the event Project is delayed due to the actions, failure to act or defaults of Customer, Customer shall pay to Contractor all additional costs incurred as a result of such delays, including, without limitation, a trip fee of \$150 for each additional trip required to complete the Project.
- 9. Insurance.** Customer shall carry fire, windstorm and other necessary insurance for the property upon which the Project is to be constructed. Contractor will carry workers compensation and liability insurance.
- 10. Warranty.** Contractor will provide labor at no cost to the original owner for replacement of materials considered defective by the manufacturer under the terms and conditions of the manufacturer's limited warranty for the period of one (1) year. Contractor's workmanship is warranted against defects for one (1) year from the date of completion of the Project (the "Warranty Period"), which warranty is expressly conditioned on Contractor's nameplate remaining on the structure and Customer properly maintaining the structure for the full Warranty Period. The materials utilized in the construction of the Project are subject to the applicable manufacturer's warranty, if any, and are not warranted by Contractor. Moreover, Customer has been advised and understands that wood is a natural product and, as such, shrinking, warping, cupping and cracking or checking is normal and to be expected, even with proper maintenance. Such conditions are not covered by Contractor's or manufacturer's warranty. THE EXPRESS WARRANTY PROVIDED HEREIN IS THE SOLE AND EXCLUSIVE WARRANTY MADE BY CONTRACTOR TO A MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW. CONTRACTOR EXPRESSLY DISCLAIMS ALL OTHER REPRESENTATIONS AND WARRANTIES OF EVERY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND FITNESS FOR INTENDED USE. CUSTOMER UNDERSTANDS THAT ANY INK, STAMPS OR DRYING MARKS ON THE MATERIAL ARE FROM THE MILL OR MANUFACTURER AND CONTRACTOR IS NOT RESPONSIBLE FOR THEIR REMOVAL. THIS WARRANTY IS NOT EXTENDED TO OWNER PROVIDED MATERIAL OR TO ANY REPAIR WORK.
- 11. Remedies and Limitation of Liability.** If any of Contractor's workmanship proves defective and Customer provides Contractor with written notice of such defect during the Warranty Period and all other conditions for warranty coverage have been satisfied, Contractor shall repair the Project, which shall be Customer's sole and exclusive remedy. In the event the defect is not due to Contractor's workmanship, but rather due to the failure of the Project materials, it shall be Customer's obligation to secure replacement materials and to pursue all material warranty rights, if any, with the material manufacturer(s). In the event of a warranty repair, the Warranty Period shall not be extended. CONTRACTOR'S OBLIGATION TO REPAIR ANY DEFECTIVE WORKMANSHIP, PURSUANT TO THE TERMS OF THIS SECTION, SHALL BE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY FOR ANY AND ALL LOSSES OR DAMAGES RELATED TO THE CONSTRUCTION OF THE PROJECT AND CONTRACTOR'S OBLIGATIONS AND PERFORMANCE HEREUNDER. CUSTOMER SHALL NOT BE ENTITLED TO ANY OTHER DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY. Under no circumstances shall Contractor's liability hereunder exceed the maximum of (a) the amount of money actually paid by Customer to Contractor, or (b) One Dollar (\$1.00).
- 12. Customer Default.** If, for any reason, Customer fails or refuses to pay the Total Price, or any portion thereof, pursuant to the Payment Terms provided herein or to perform any of Customer's other obligations hereunder, Customer shall be in default. In such case, Contractor shall be relieved of any further obligation under the terms of this Contract, and shall be entitled to retain all funds paid to it through the date of such default and to the immediate payment of the balance of the Total Price. All materials used in the construction of the Project shall belong to Contractor until customer makes full payment of the Total Price. If Customer defaults upon its payment or other obligations hereunder, in addition to Contractor's other rights under this Contract and Virginia law (including, without limitation, the right to file a mechanics lien), Contractor shall be entitled (a) to remove all materials from Customer's property, in addition to exercising all of its other rights under this Contract and applicable state law, and (b) to recover from Customer all costs, fees and expenses (including all legal fees and costs) incurred by it, whether or not litigation is commenced.
- 13. Applicable Law; Disputes.** This Contract and the rights and obligations of the parties hereunder shall be governed and resolved exclusively by the laws of the Commonwealth of Virginia. Exclusive jurisdiction over any and all lawsuits or other actions filed to resolve any disputes arising out of or in any way related to this Contract or to enforce any right hereunder shall be in the General District and Circuit Courts of Loudoun County, Virginia, to which jurisdiction the parties hereby consent.
- 14. Severability.** It is the parties' intention and agreement that, should a court of competent jurisdiction determine that any provision or portion of any provision contained in this Contract is unenforceable, invalid or void, that the balance of the Contract or affected provision, as applicable, be enforced to the full extent possible consistent with the parties' intentions as expressed herein.

BT

2 JUNE 2021

ARCHITECTURAL REVIEW BOARD
CERTIFICATE OF APPROPRIATENESS 23-48

July 27, 2023

MOTION TO APPROVE

I move to approve the application for **Certificate of Appropriateness 23-48** for the request to install a three-board paddock style fence in the back yard, as described and depicted within the application, at **53 Menlough Drive**, with the following conditions:

- 1) All necessary permits are acquired.

Motion to Approve By:

Seconded By:

For:

Against:

Abstained:

Vicinity Map – Street View



Photos:

Paddock-style fence with black wire example:



Existing fencing across rear of parcel boundary:





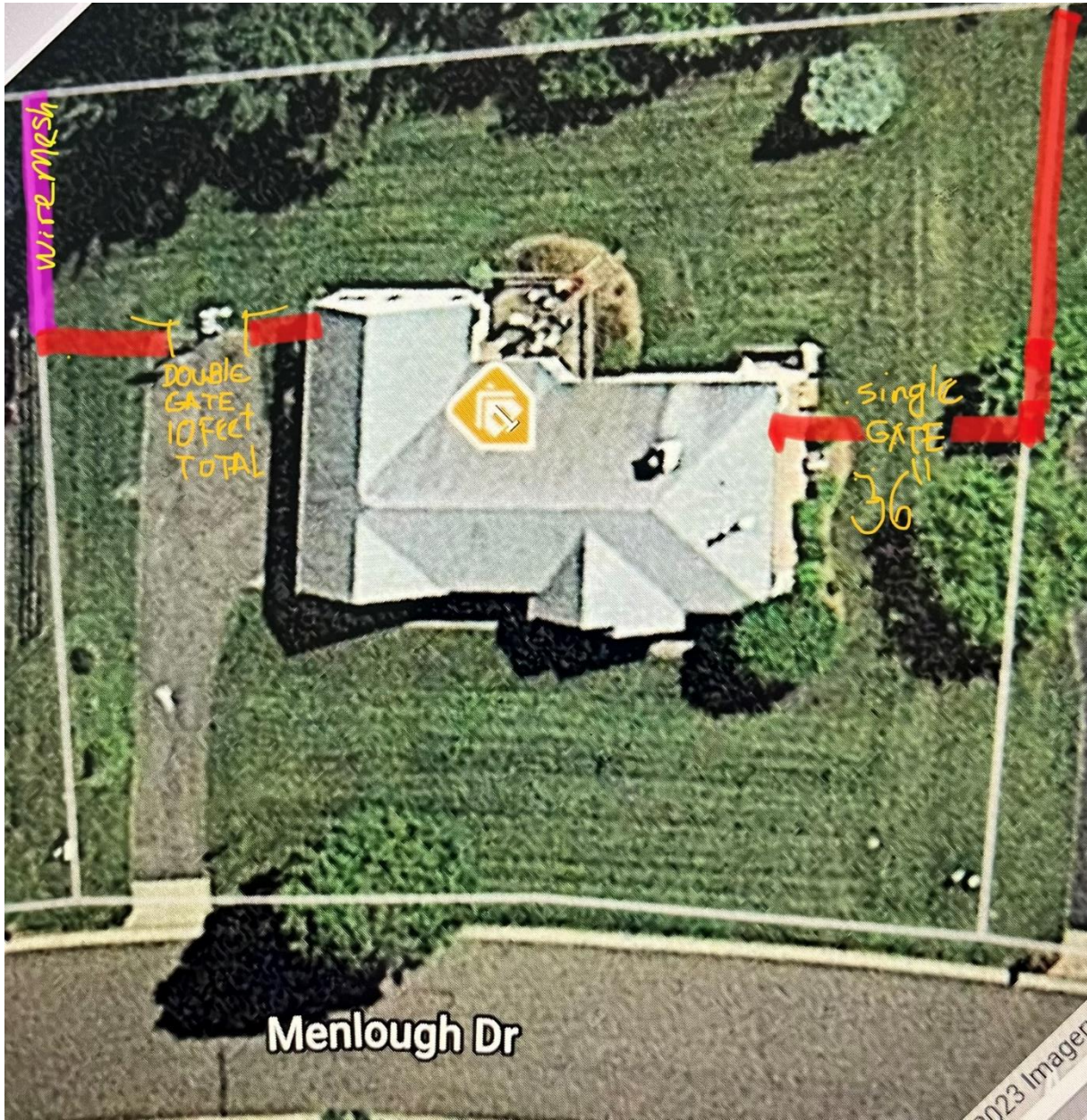




Example black wire:

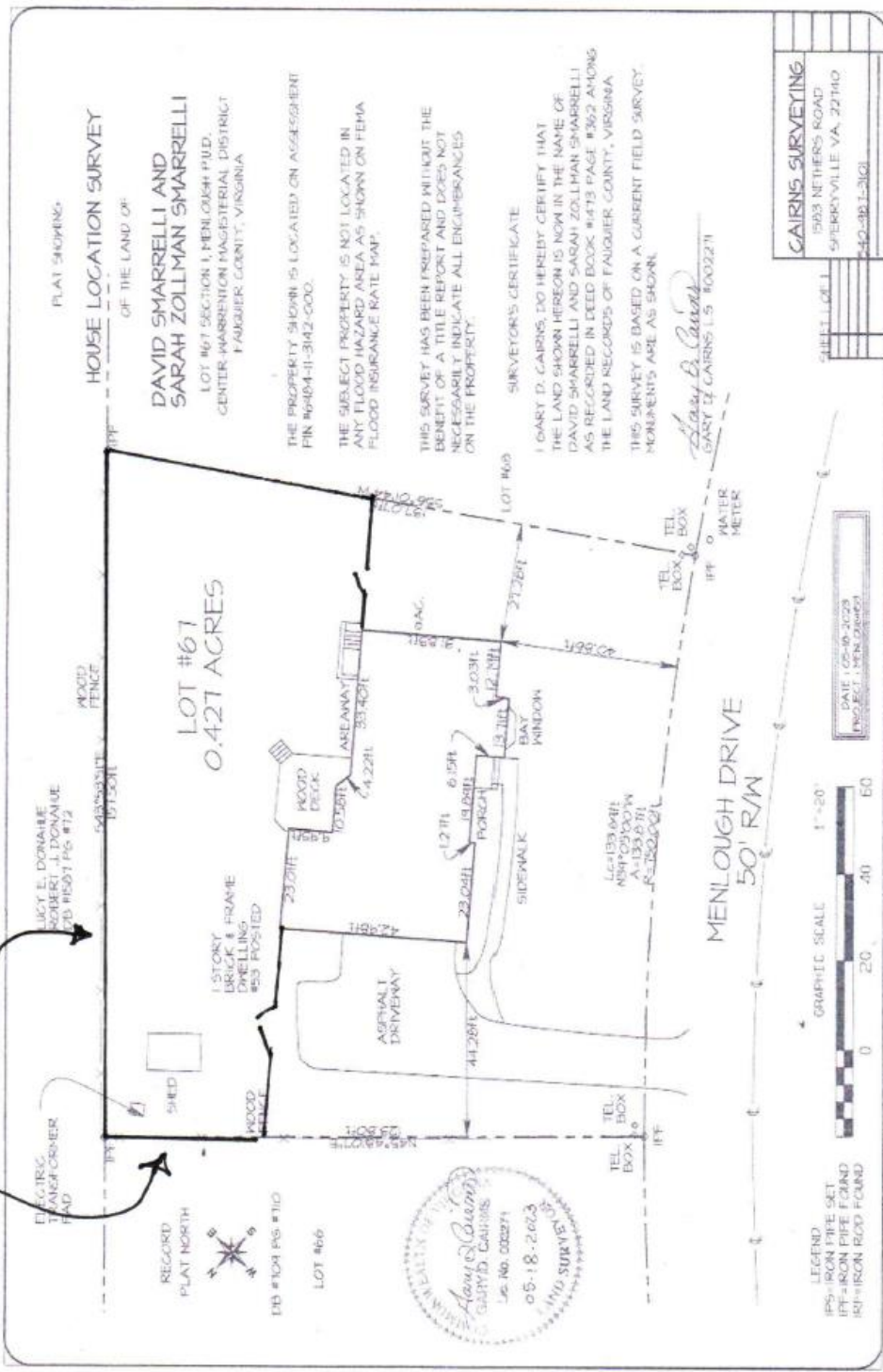


Plans:



THERE'S AN EXISTING FENCE ALONG THESE LINES AND I WOULD JUST ADD 1X2 BACK WIRE.

REST OF FENCE IS 3 RAIL Paddock PTP + 1X2 BACK WIRE, 4' HIGH, - 1 GATE and BACK SIDE.





44330 Mercure Circle | Suite 140, Dulles VA 20166
 Office (703) 820-0967 Fax (703) 861-8610
 CL# 2705078833A | MD Lic. # 127411

Date: 05/21/2023 Job Number: _____ County: Town of Warrenton
 Name: Cynthia Axell
 Address: 53 Menlough Dr.
 City: Warrenton State: Va. Zip: 20186
 Job Site Address: Same
 Home Phone: 707 481-0650 Cell Phone: _____
 Email: h20av8tricks@aol.com
 Project Description (Goods and Services Sold):

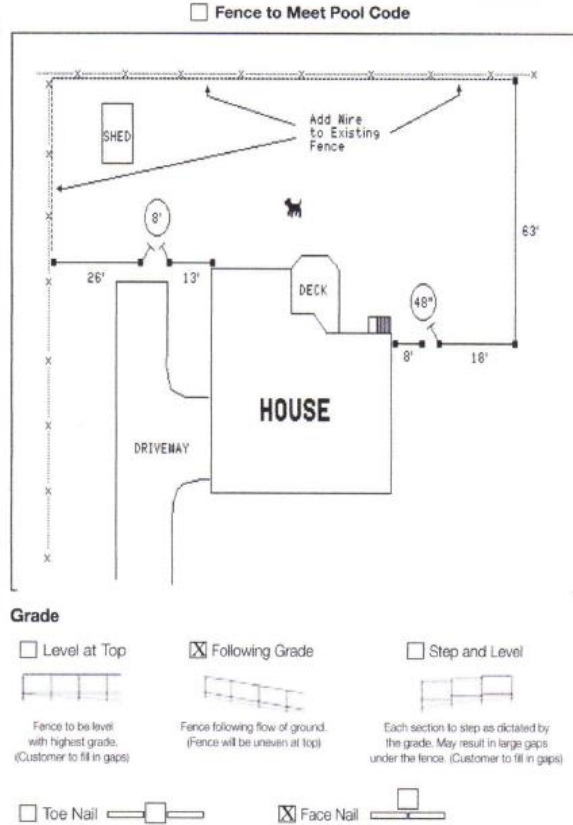
140' of 4' high Pressure Treated 3-BOARD Paddock W/ 1X2 BLACK WIRE Fencing including One 48" high x 48" wide single gate and One 48" high x 8' wide double gate. Posts are 4x4 PTP with black caps. Gate posts are 6x6 PTP with black caps. Horizontal boards are 1x6 PTP - Face out. Wire is stapled to the inside. Additional wire to be stapled to the existing fence. Gates are paddock style with wire on the inside. All posts are set in dry-packed concrete 24"-30" in the earth or until refusal. All materials are #2 southern yellow pine (pressure treated) unless otherwise stated. All nails are galvanized ring shank unless otherwise stated. Homeowner responsible for obtaining any required building/zoning permits. Homeowner is responsible for any required HOA approvals. Homeowner is responsible for the fence layout and location. Builders Fence Company is not responsible for damage to private utilities, irrigation systems or underground drainage systems.

Job Notes:

List Price = \$ 4,929.32 Less 15% Discount = \$ 4,189.92

Total Contract Price: \$ 4189.92
(Price valid for 15 Days)
 Deposit: \$ 20.94
 Due Upon Substantial Completion: \$ 4168.98
 Estimated Start Date: 4 weeks
 Estimated Completion Date: 1 - 2 days

The projected dates are contingent upon obtaining approved financing, permits, H.O.A., or other conditions beyond Seller's control.



Customer agrees to pay the Total Price for such materials and labor, pursuant to the Payment Terms provided at left. All materials are to be #2 pressure treated southern yellow pine unless otherwise stated. Interest at the rate of 2% per month will accrue on all past due accounts. Builders Fence Company will not accept out of state checks.

BUYERS RIGHT TO CANCEL: If this agreement was solicited at a residence and you do not want the goods or services, you the buyer, may cancel this transaction at any time prior to midnight of the third business day after the date of this transaction. See Notice of Cancellation for an explanation of this right.

Acceptance: The construction proposal contained herein, including the specified price, payment terms, construction specifications, and other terms and conditions on the reverse side of this contract, is hereby ACCEPTED.

Builders Fence Company

(Authorized Representative's Signature)
Jeffrey A. Cederborg
Authorized Representative's Printed Name

Buyer(s)

(Signature) 2 June 2023
(Signature) Date



Community Development
Department

STAFF REPORT

Meeting Date:	July 27, 2023
Agenda Title:	COA 23-49 – 34 N. Fourth Street
Requested Action:	Review proposal for the request to make alterations to DISH telecommunications equipment on existing Town of Warrenton water tank.
Department / Agency Lead:	Community Development
Staff Lead:	Casey Squyres

EXECUTIVE SUMMARY

The applicant is proposing to make alterations to DISH telecommunications equipment on existing Town of Warrenton water tank.

- 1) Equipment to include (3) proposed panel antennas, jumpers, (6) RRUs, (3) OVPs, (3) hybrid cables, and ground equipment to include metal platform, PPC, equipment cabinet, power and telco conduit, fiber box, fiber NID and GPS unit.
- 2) Overgrowth clearing and fence repair as needed.

BACKGROUND

This building was constructed in c.1965 and is in good condition. It represents a typical mid-twentieth century industrial structure. It retains integrity of location, design, setting, feeling, and association. This resource falls within the district's period of significance and contributes to the character of the district. Although the resource does not possess sufficient architectural or historical significance to qualify for individual listing in the National Register, it is a contributing resource to the Warrenton Historic District under Criterion C for architecture.



DESIGN GUIDELINE CONSIDERATIONS

Historic District Guideline	Page No.	Analysis
A. MECHANICAL SYSTEMS & EQUIPMENT		
1. Install mechanical equipment to minimize impacts on historic fabric and building appearance.	3.47	Applicant has demonstrated ability to minimize impacts to historic fabric.
5. Install mechanical equipment in areas and spaces that require the least amount of alteration to the historic materials, plan, and avoid visible façades of the building	3.47	Applicant has demonstrated ability to minimize impacts to historic fabric.
7. Any exposed or visible lines should be painted or covered to blend with the exterior of the building.	3.47	Applicant shall confirm that any visible lines will be painted or covered.
1. Exhaust and supply fans should be located in the least conspicuous place using the least harmful installation and operational means	3.48	Applicant has demonstrated ability to minimize impacts to historic fabric and will be obscured via an existing privacy fence.
2. Locate utility meters as inconspicuously as possible. If locating the meter on a primary façade is unavoidable, paint the meter to match the color of the building façade, and/or screen the utility meter with landscaping or other means.	3.48	Applicant has demonstrated ability to minimize impacts to historic fabric and will be obscured via an existing privacy fence. Applicant shall confirm that any visible lines will be painted or covered.
E. CELLULAR EQUIPMENT & ANTENNAS		
1. Locate cellular equipment to avoid damage to historic architecture and to be disguised and concealed.	3.56	Applicant shall confirm that any visible lines will be painted or covered.
3. Concealment structures should be identical to authentic structures in design, dimensions, and location on the building.	3.56	Applicant has demonstrated that the existing privacy fence will receive in-kind repairs.
2. SITE DESIGN – A. LANDSCAPING		
1. Preserve and maintain specimen trees, allées, historic plantings, and garden designs.	3.6	N/A
B. FENCES & WALLS		
2. New fences and walls should not exceed six feet in height, or the maximum allowed by the zoning district regulations	3.8	N/A

Historic District Guideline	Page No.	Analysis
For wooden stockade fences, avoid simplicity. Design with architectural details such as capped posts, pointed or shaped boards, varied board heights, or scalloped sections, for example. The rails should face the interior lot. Pressure treated lumber is acceptable but stained or painted is recommended.	3.8	N/A

STAFF RECOMMENDATION

Staff recommends approval of the request to make alterations to DISH telecommunications equipment on existing Town of Warrenton water tank, as described and depicted within the application, provided the following conditions are met:

- 1) All necessary permits are acquired.
- 2) The applicant shall not install mechanical equipment that radically changes the appearance of the historic structure.
- 3) Any proposed installation of cellular communications equipment will have the least possible visual impact on historic fabric and on the surrounding historic district and shall not be visible from the public street or right-of-way.
- 4) Design conduits to carry wires and cables through existing chases on the interior of the structure, as permitted by the local building code. Wires and cables may not be run on primary façades.
- 5) Do not introduce trees or other plantings with the intention of blocking the front façade from the public street or right-of-way. In this way, evergreen trees are not the best choice for the historic district. New plantings should be restrained so that views to and from the historic building are not inappropriately obstructed.

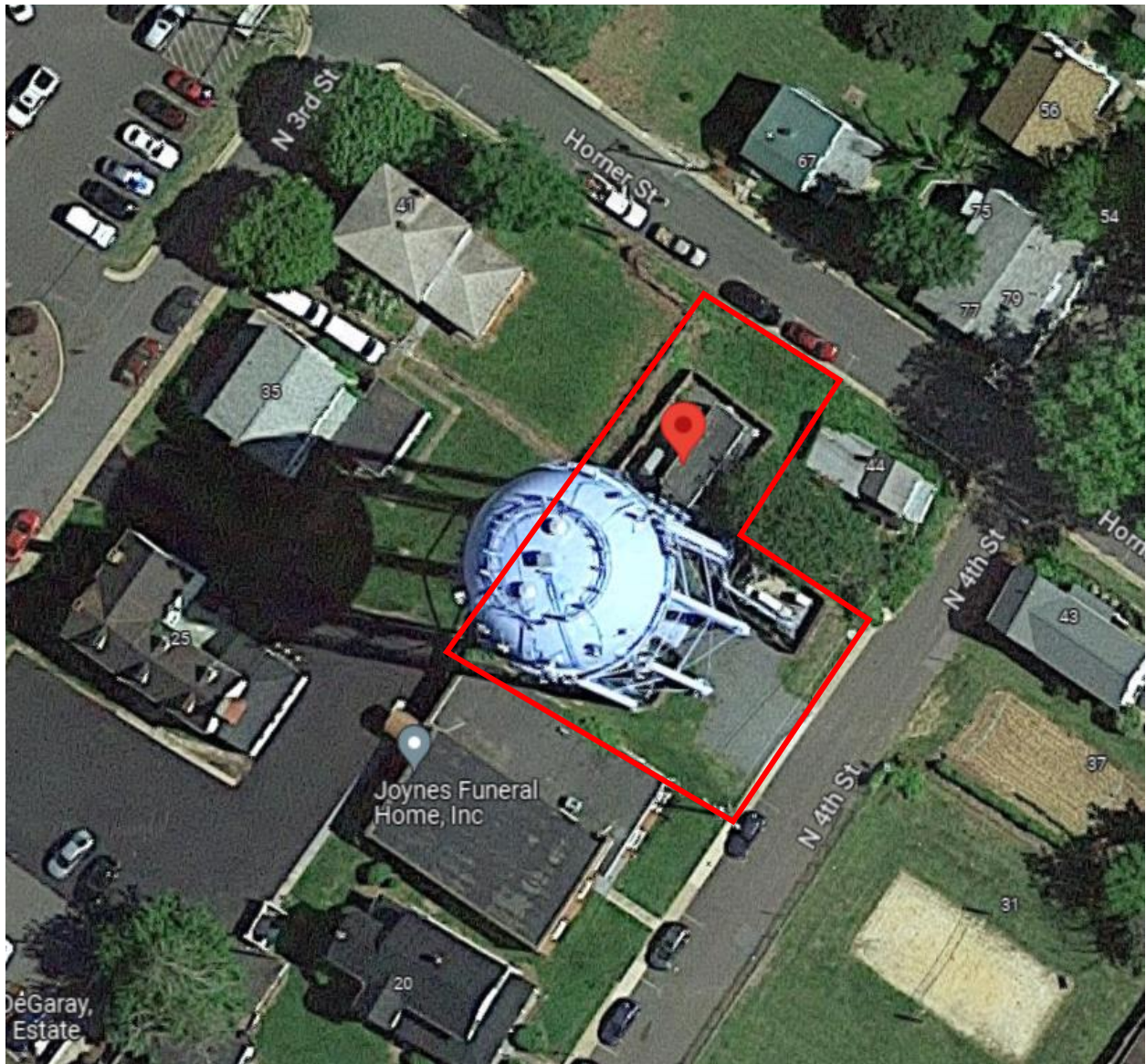
ATTACHMENTS

1. Attachment 1 - Photos
2. Attachment 2 - Draft Motion Sheet

DiSH Triple-band RU Technical Specifications

RU General Specification	
TRX Configuration	4T4R
Operating Frequency	n71 & n29 & n26 Frequencies (Triple-Band)
Instantaneous Bandwidth	n71: 35MHz n29: 11MHz n26: 7MHz
Operation Bandwidth	n71: 35MHz n29: 10MHz n26: 5MHz
CC BW	5/10/20 MHz
Capacity	n71:2Cr(5/10/20MHz) + NB-IOT (5/10MHz) n26:1Cr/NB-IOT (5MHz) n29:2Cr (5/10MHz)
Interface to DU	ORAN 7.2x / 10G optical IF
TX Specification	
Output Power per TX	n71: 30W per port n29: 40W per port n26: 10 W per port
ACLR	Compliant with 3GPP TS 38.104
Transmitter Spurious Emissions	Compliant with 3GPP TS 38.104
EVM	Compliant with 3GPP TS 38.104
RX Specification	
Noise Figure	2.5dB (normal condition 2.2dB)
Blocking Features	Compliant with 3GPP TS 38.104
Receiver spurious emissions	Compliant with 3GPP TS 38.104
Mechanical Specification	
Volume	35 L
Dimension	W:400mm, H: 380mm, D: 230mm
Antenna Connector Type	4.3-10 RF connector
External alarm port	1
Antenna Control Interface	AISG
Power Supply	DC -58~-36V
Power Consumption	Max: 1200W
Weight	34 kg
Environmental	
Humidity (Absolute humidity)	0.03 g/m ³ ~ 30 g/m ³
Operating Temperature	-40°C ~ +55°C
IP Rating	IP65
Cooling	Passive
Mounting Options	
Pole	TBD
Wall	TBD

Vicinity Map – Street View



Photos:



















Plans:

DiSH Dual-band RU Technical Specifications

RU General Specification	
TRX Configuration	4T4R
Operating Frequency	N70 & n66 Frequencies (Dual-Band)
Instantaneous Bandwidth	n70: DL:25MHz, UL15MHz n66: DL 90MHz, UL 70MHz
Operation Bandwidth	n70: DL:25MHz, UL15MHz n66: DL 90MHz, UL 70MHz
CC BW	5/10/15/20 MHz
Capacity	N70:2Cr(5/10/15/20 MHz) + N66:2Cr (5/10/15/20 MHz) /N70 1Cr(5/10/15/20 MHz) + N66 3Cr (5/10/15/20 MHz)
Interface to DU	ORAN 7.2x / 10G optical IF
TX Specification	
Output Power per TX	n70: 20-40W per port n66: 40-60W per port Total 80W per port
ACLR	Compliant with 3GPP TS 38.104
Transmitter Spurious Emissions	Compliant with 3GPP TS 38.104
EVM	Compliant with 3GPP TS 38.104
RX Specification	
Noise Figure	2.5dB (normal condition 2.2dB)
Blocking Features	Compliant with 3GPP TS 38.104
Receiver spurious emissions	Compliant with 3GPP TS 38.104
Mechanical Specification	
Volume	30 L
Dimension	W:400mm, H: 380mm, D: 200mm
Antenna Connector Type	4.3-10 RF connector
External alarm port	1
Antenna Control Interface	AISG
Power Supply	DC -58~-36V
Power Consumption	Max: 1200W
Weight	29 kg
Environmental	
Humidity (Absolute humidity)	0.03 g/m3 ~ 30 g/m3
Operating Temperature	-40°C ~ +55°C
IP Rating	IP65
Cooling	Passive
Mounting Options	
Pole	TBD
Wall	TBD

DiSH Triple-band RU Technical Specifications

RU General Specification	
TRX Configuration	4T4R
Operating Frequency	n71 & n29 & n26 Frequencies (Triple-Band)
Instantaneous Bandwidth	n71: 35MHz n29: 11MHz n26: 7MHz
Operation Bandwidth	n71: 35MHz n29: 10MHz n26: 5MHz
CC BW	5/10/20 MHz
Capacity	n71:2Cr(5/10/20MHz) + NB-IOT (5/10MHz) n26:1Cr/NB-IOT (5MHz) n29:2Cr (5/10MHz)
Interface to DU	ORAN 7.2x / 10G optical IF
TX Specification	
Output Power per TX	n71: 30W per port n29: 40W per port n26: 10 W per port
ACLR	Compliant with 3GPP TS 38.104
Transmitter Spurious Emissions	Compliant with 3GPP TS 38.104
EVM	Compliant with 3GPP TS 38.104
RX Specification	
Noise Figure	2.5dB (normal condition 2.2dB)
Blocking Features	Compliant with 3GPP TS 38.104
Receiver spurious emissions	Compliant with 3GPP TS 38.104
Mechanical Specification	
Volume	35 L
Dimension	W:400mm, H: 380mm, D: 230mm
Antenna Connector Type	4.3-10 RF connector
External alarm port	1
Antenna Control Interface	AISG
Power Supply	DC -58~-36V
Power Consumption	Max: 1200W
Weight	34 kg
Environmental	
Humidity (Absolute humidity)	0.03 g/m3 ~ 30 g/m3
Operating Temperature	-40°C ~ +55°C
IP Rating	IP65
Cooling	Passive
Mounting Options	
Pole	TBD
Wall	TBD



MX08FRO665-21

NWAV™ X-Pol 8-Port Antenna

X-Pol 8-Port 6 ft 65° Fast Roll Off:

4 ports 617-894 MHz and 4 ports 1695-2200 MHz

- Fast Roll Off (FRO™) azimuth beam pattern improves Intra- and Inter-cell SINR
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for low and mid bands for ease of network optimization
- SON-Ready array spacing supports beamforming capabilities.
- High total power handling to maximize network efficiency
- Reduced tower loading for ease of site deployment

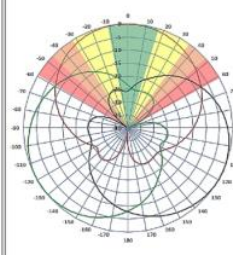


NWAV™

Fast Roll-Off antennas increase data throughput without compromising coverage

The horizontal beam produced by Fast Roll-Off (FRO) technology increases the Signal to Interference & Noise Ratio (SINR) by eliminating overlap between sectors.

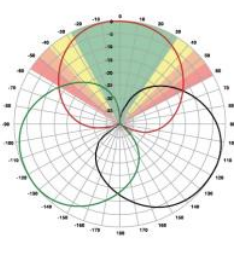
Non-FRO antenna



Large traditional antenna pattern overlap creates harmful interference.

JMA's FRO antenna pattern minimizes overlap, thereby minimizing interference.

JMA FRO antenna



LTE throughput	SINR	Speed (bps/Hz)	Speed increase	CQI
Excellent	>18	>4.5	333+%	8-10
Good	15-18	3.3-4.5	277%	6-7
Fair	10-15	2-3.3	160%	4-6
Poor	<10	<2	0%	1-3

The LTE radio automatically selects the best throughput based on measured SINR.

Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4		Ports 5, 6, 7, 8		
Frequency bands, MHz	617-698	698-894	1695-1880	1850-1990	1920-2200
Polarization	± 45°		± 45°		
Gain over all tilts, max, dBi	13.6	14.8	18.5	18.3	18.8
Horizontal beamwidth (HBW), degrees ¹	68	62	62	62	64
Front-to-back ratio, co-polar power @180°, dB	>28	>29	>32	>31	>32
Vertical beamwidth (VBW), degrees ¹	14.2	12.5	5.4	5.2	4.9
Electrical downtilt (EDT) range, degrees	2-14		2-12		
First upper side lobe (USLS) suppression, dB ¹	≤-16.0	≤-16.5	≤-18.0	≤-18.0	≤-18.0
Minimum cross-polar isolation, port-to-port, dB ¹	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153		-153		
Max input power per any port, watts	300		250		
Total composite power all ports (1-8), watts ²	1500				

¹ Typical value over frequency and tilt

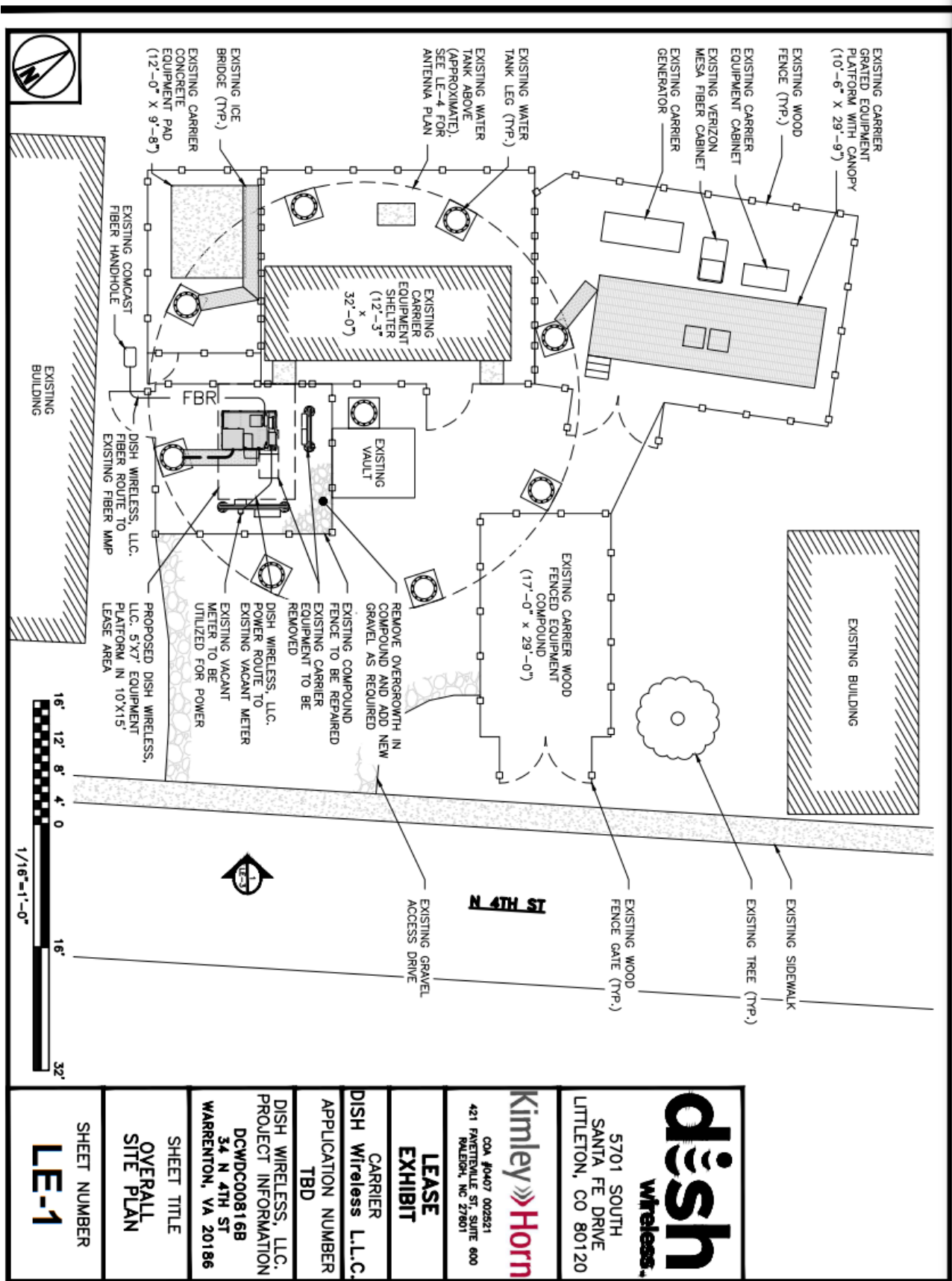
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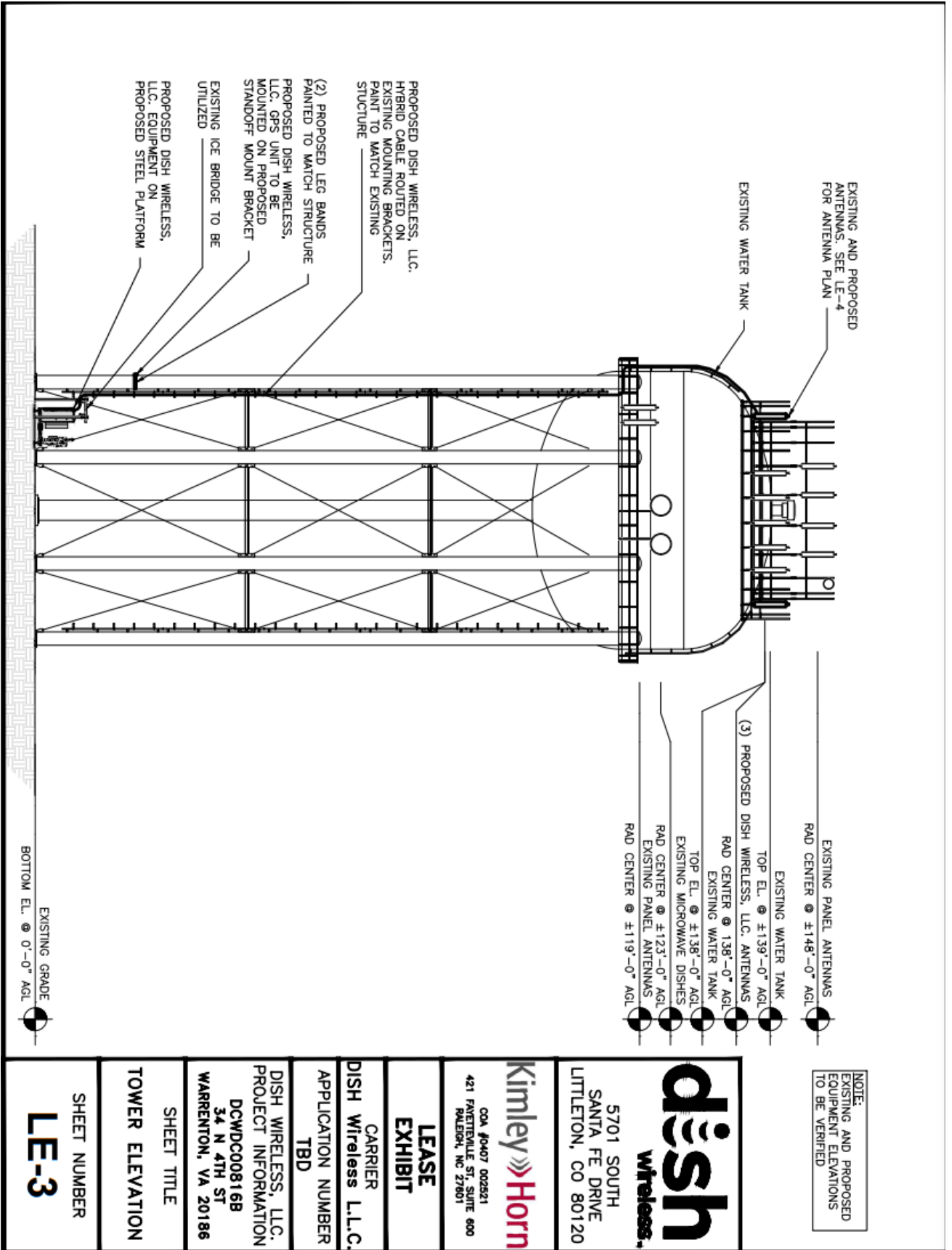


MX08FRO665-21
NWAV™ X-Pol 8-Port Antenna

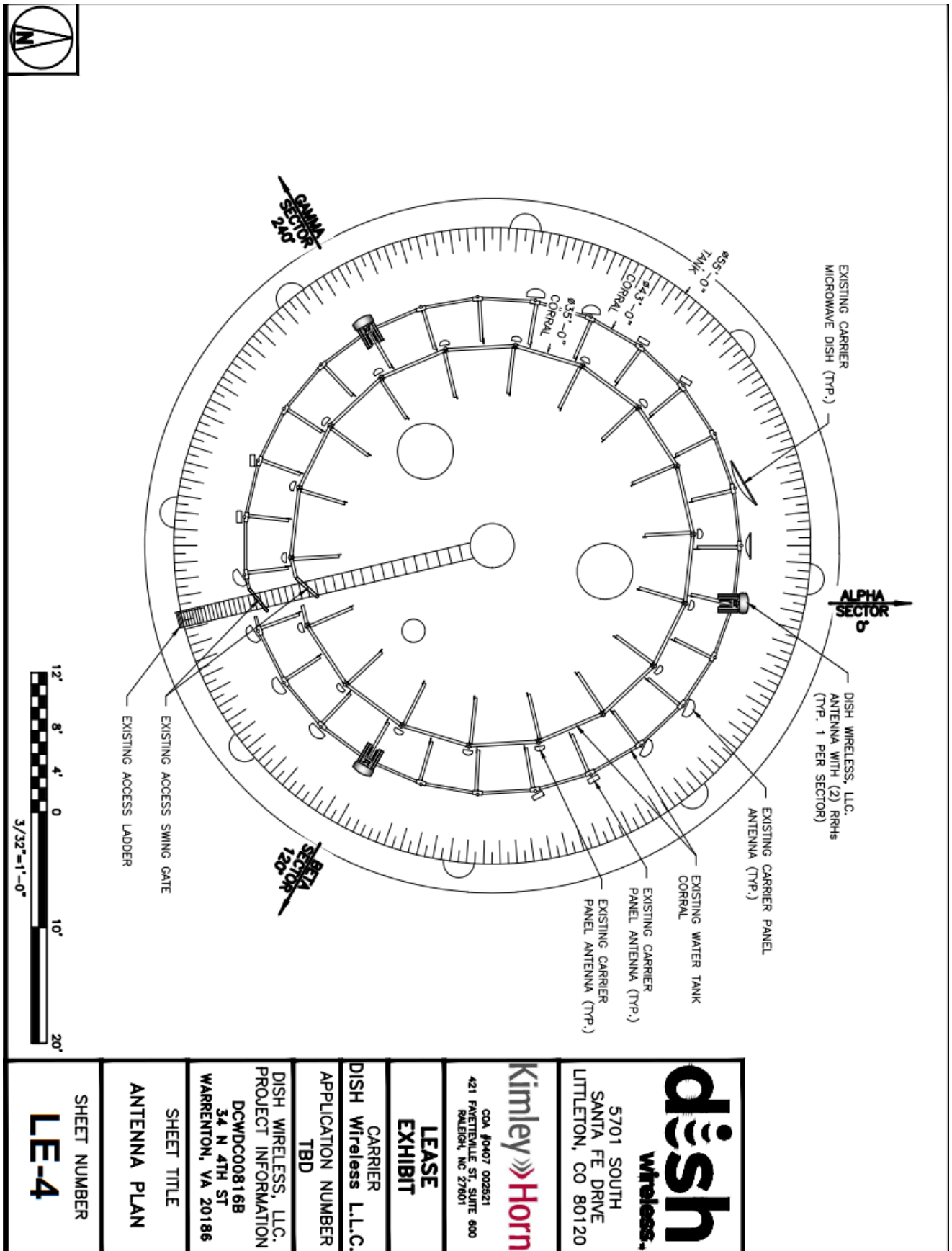
Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4		Ports 5, 6, 7, 8		
Frequency bands, MHz	617-698	698-894	1695-1880	1850-1990	1920-2200
Average gain over all tilts, dBi (Gain Tolerance)	13.0±0.6	14.2±0.6	18.1±0.4	17.9±0.4	18.3±0.5
Horizontal beamwidth tolerance (HBW), degrees ¹	±5	±6.5	±5.0	±3.5	±3.5
Vertical beamwidth tolerance (VBW), degrees	±0.5	±0.5	±0.3	±0.3	±0.3
Front-to-back ratio, co-polar power @180°± 30°, dB	>27	>25	>25	>27	>26
X-Pol discrimination (CPR) at boresight, dB	>22	>20	20	>21	>22
First upper side lobe (USLS) suppression boresight to 20°, dB ¹	≤-16	≤-15	≤-16	≤-16	≤-16

Mechanical specifications	
Dimensions height/width/depth, inches (mm)	72.0/ 20.0/ 8.0 (1828.8/ 508.0/ 203.2)
Shipping dimensions length/width/height, inches (mm)	77.3/ 23.8/ 14.5 (1963.42/ 605/ 368)
No. of RF input ports, connector type, and location	8 x 4.3-10 female, bottom
RF connector torque	96 lbf-in (10.85 N-m or 8 lbf-ft)
Net antenna weight, lb (kg)	64.5 (29.3)
Shipping weight, lb (kg)	104 (47.2)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.2)
Range of mechanical up/down tilt	-2° to 12°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal and lateral wind loading @ 150 km/h, lbf (N)	108.1 (480.9), 20.5 (91.2)
Effective projected area @ 150 km/h (EPA), frontal, sq ft	4.9





5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120	
COA #0407 002521 421 FARETTEVILLE ST, SUITE 600 RALEIGH, NC 27601	
LEASE EXHIBIT	
CARRIER DISH Wireless L.L.C.	
APPLICATION NUMBER TBD	
DISH WIRELESS, LLC. PROJECT INFORMATION DCWDC00816B 34 N 4TH ST WARRENTON, VA 20186	
SHEET TITLE TOWER ELEVATION	
SHEET NUMBER LE-3	



5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120	
COA #0407 002521 421 FAIVETVILLE ST, SUITE 600 RALEIGH, NC 27601	
LEASE EXHIBIT	
CARRIER	DISH Wireless L.L.C.
APPLICATION NUMBER	TBD
DISH WIRELESS, L.L.C. PROJECT INFORMATION	DCWDC00816B
	34 N 4TH ST WARRENTON, VA 20186
SHEET TITLE	ANTENNA PLAN
SHEET NUMBER	LE-4

DiSH Dual-band RU Technical Specifications

RU General Specification	
TRX Configuration	4T4R
Operating Frequency	N70 & n66 Frequencies (Dual-Band)
Instantaneous Bandwidth	n70: DL:25MHz, UL15MHz n66: DL 90MHz, UL 70MHz
Operation Bandwidth	n70: DL:25MHz, UL15MHz n66: DL 90MHz, UL 70MHz
CC BW	5/10/15/20 MHz
Capacity	N70:2Cr(5/10/15/20 MHz) + N66:2Cr (5/10/15/20 MHz) /N70 1Cr(5/10/15/20 MHz) + N66 3Cr (5/10/15/20 MHz)
Interface to DU	ORAN 7.2x / 10G optical IF
TX Specification	
Output Power per TX	n70: 20-40W per port n66: 40-60W per port Total 80W per port
ACLR	Compliant with 3GPP TS 38.104
Transmitter Spurious Emissions	Compliant with 3GPP TS 38.104
EVM	Compliant with 3GPP TS 38.104
RX Specification	
Noise Figure	2.5dB (normal condition 2.2dB)
Blocking Features	Compliant with 3GPP TS 38.104
Receiver spurious emissions	Compliant with 3GPP TS 38.104
Mechanical Specification	
Volume	30 L
Dimension	W:400mm, H: 380mm, D: 200mm
Antenna Connector Type	4.3-10 RF connector
External alarm port	1
Antenna Control Interface	AISG
Power Supply	DC -58~-36V
Power Consumption	Max: 1200W
Weight	29 kg
Environmental	
Humidity (Absolute humidity)	0.03 g/m3 ~ 30 g/m3
Operating Temperature	-40°C ~ +55°C
IP Rating	IP65
Cooling	Passive
Mounting Options	
Pole	TBD
Wall	TBD

MX08FRO665-21

NWAV™ X-Pol 8-Port Antenna

X-Pol 8-Port 6 ft 65° Fast Roll Off:

4 ports 617-894 MHz and 4 ports 1695-2200 MHz

- Fast Roll Off (FRO™) azimuth beam pattern improves Intra- and Inter-cell SINR
- Excellent passive intermodulation (PIM) performance reduces harmful interference.
- Fully integrated (iRETs) with independent RET control for low and mid bands for ease of network optimization
- SON-Ready array spacing supports beamforming capabilities.
- High total power handling to maximize network efficiency
- Reduced tower loading for ease of site deployment

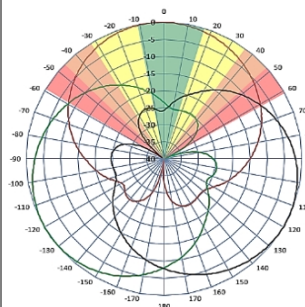


NWAV™

Fast Roll-Off antennas increase data throughput without compromising coverage

The horizontal beam produced by Fast Roll-Off (FRO) technology increases the Signal to Interference & Noise Ratio (SINR) by eliminating overlap between sectors .

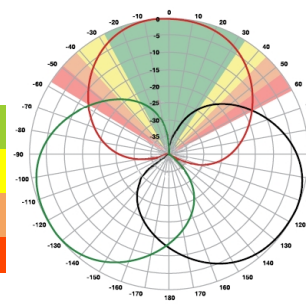
Non-FRO antenna



Large traditional antenna pattern overlap creates harmful interference.

JMA's FRO antenna pattern minimizes overlap, thereby minimizing interference.

JMA FRO antenna



LTE throughput	SINR	Speed (bps/Hz)	Speed increase	CQI
Excellent	>18	>4.5	333+%	8-10
Good	15-18	3.3-4.5	277%	6-7
Fair	10-15	2-3.3	160%	4-6
Poor	<10	<2	0%	1-3

The LTE radio automatically selects the best throughput based on measured SINR.

Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4		Ports 5, 6, 7, 8		
Frequency bands, MHz	617-698	698-894	1695-1880	1850-1990	1920-2200
Polarization	± 45°		± 45°		
Gain over all tilts, max, dBi	13.6	14.8	18.5	18.3	18.8
Horizontal beamwidth (HBW), degrees ¹	68	62	62	62	64
Front-to-back ratio, co-polar power @180°, dB	>28	>29	>32	>31	>32
Vertical beamwidth (VBW), degrees ¹	14.2	12.5	5.4	5.2	4.9
Electrical downtilt (EDT) range, degrees	2-14		2-12		
First upper side lobe (USLS) suppression, dB ¹	≤-16.0	≤-16.5	≤-18.0	≤-18.0	≤-18.0
Minimum cross-polar isolation, port-to-port, dB ¹	25	25	25	25	25
Max VSWR / return loss, dB	1.5:1 / -14.0		1.5:1 / -14.0		
Max passive intermodulation (PIM), 2x20W carrier, dBc	-153		-153		
Max input power per any port, watts	300		250		
Total composite power all ports (1-8), watts ²	1500				

¹ Typical value over frequency and tilt

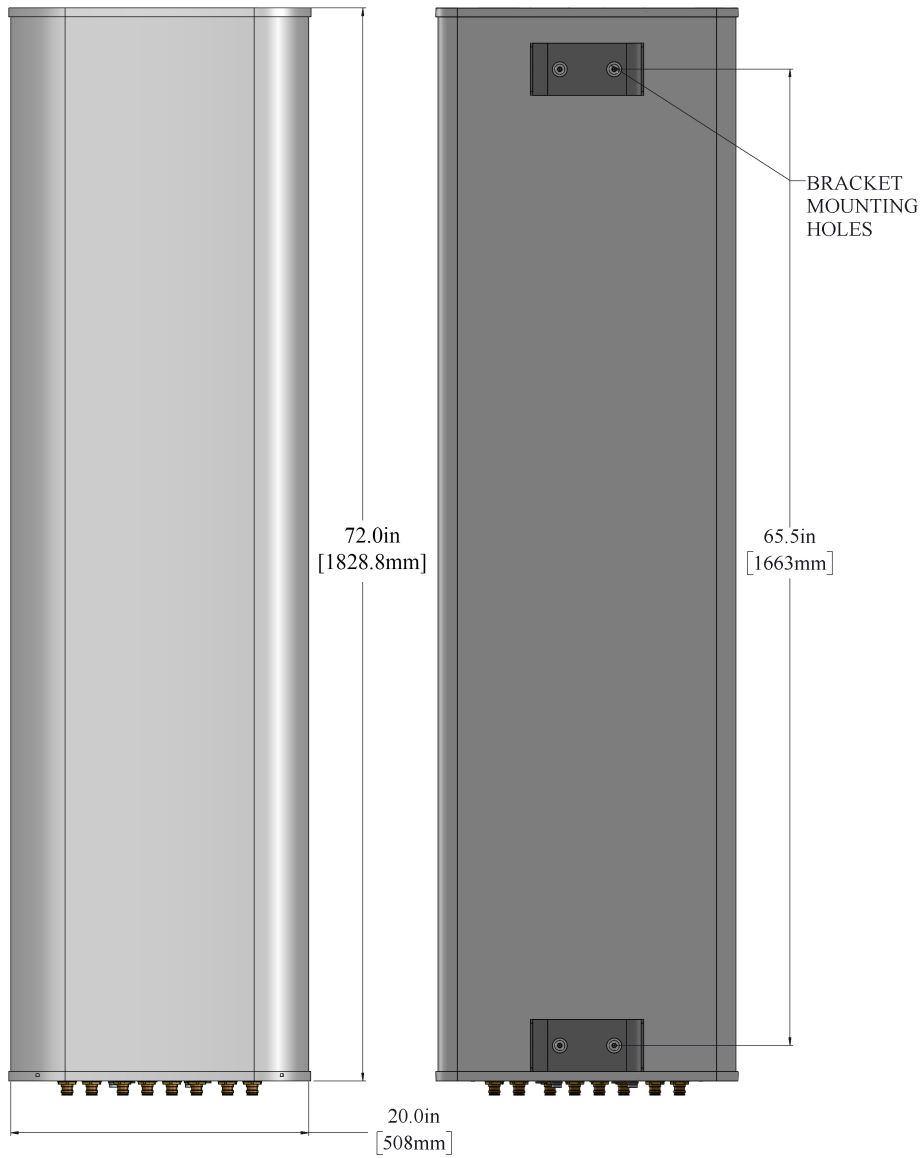
² Power rated up to +55 °C

Electrical specification (minimum/maximum)	Ports 1, 2, 3, 4		Ports 5, 6, 7, 8		
Frequency bands, MHz	617-698	698-894	1695-1880	1850-1990	1920-2200
Average gain over all tilts, dBi (Gain Tolerance)	13.0±0.6	14.2±0.6	18.1±0.4	17.9±0.4	18.3±0.5
Horizontal beamwidth tolerance (HBW), degrees ¹	±5	±6.5	±5.0	±3.5	±3.5
Vertical beamwidth tolerance (VBW), degrees	±0.5	±0.5	±0.3	±0.3	±0.3
Front-to-back ratio, co-polar power @180°± 30°, dB	>27	>25	>25	>27	>26
X-Pol discrimination (CPR) at boresight, dB	>22	>20	20	>21	>22
First upper side lobe (USLS) suppression boresight to 20°, dB ¹	≤-16	≤-15	≤-16	≤-16	≤-16

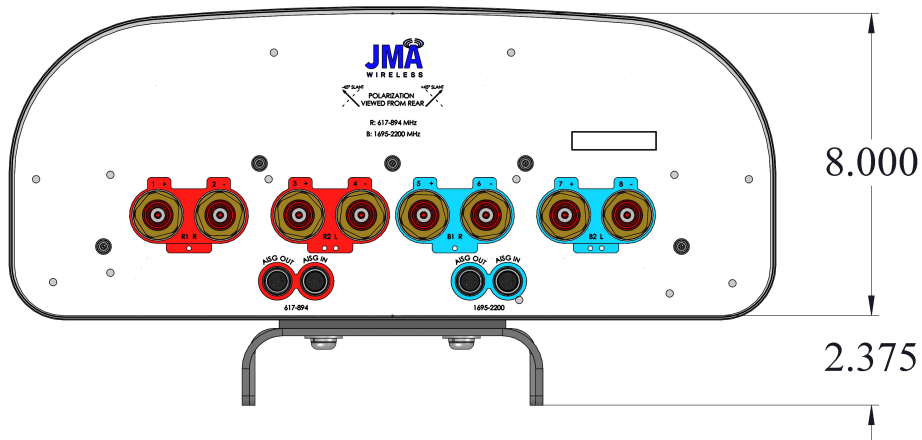
Mechanical specifications	
Dimensions height/width/depth, inches (mm)	72.0/ 20.0/ 8.0 (1828.8/ 508.0/ 203.2)
Shipping dimensions length/width/height, inches (mm)	77.3/ 23.8/ 14.5 (1963.42/ 605/ 368)
No. of RF input ports, connector type, and location	8 x 4.3-10 female, bottom
RF connector torque	96 lbf-in (10.85 N·m or 8 lbf-ft)
Net antenna weight, lb (kg)	64.5 (29.3)
Shipping weight, lb (kg)	104 (47.2)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.2)
Range of mechanical up/down tilt	-2° to 12°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal and lateral wind loading @ 150 km/h, lbf (N)	108.1 (480.9), 20.5 (91.2)
Effective projected area @ 150 km/h (EPA), frontal, sq ft	4.9

Front view

Back view



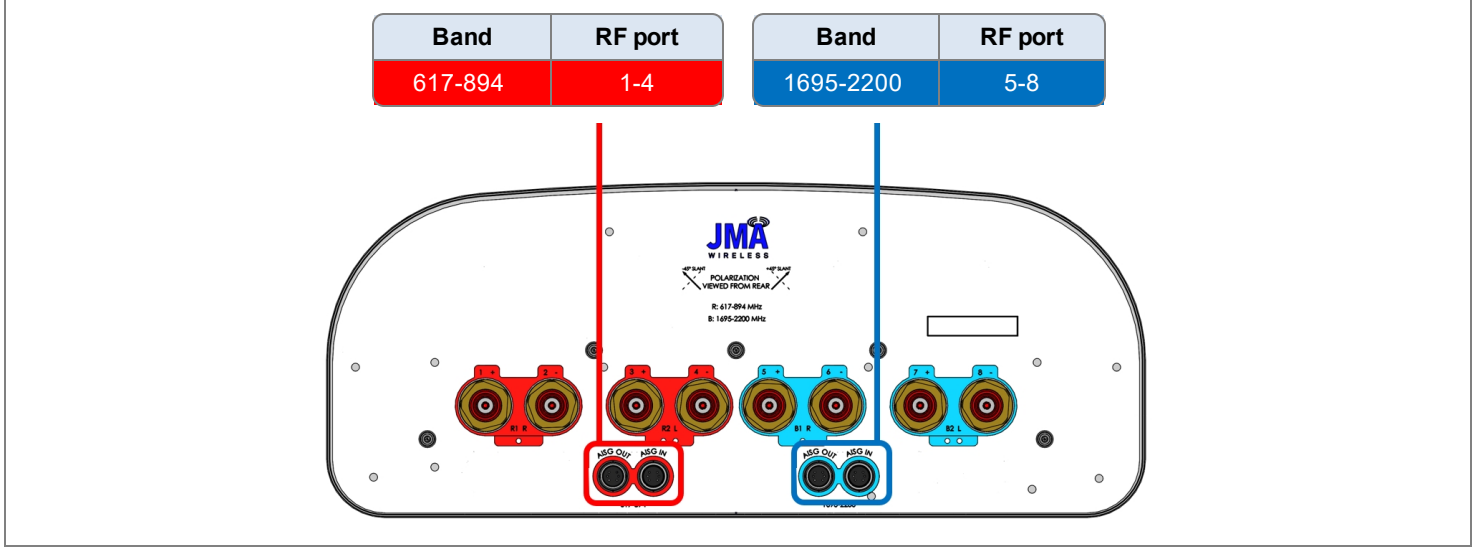
Bottom view



Remote electrical tilt (RET 2000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9
RET connector torque	Min 0.5 N·m to max 1.0 N·m (hand pressure & finger tight)
RET interface connector quantity	2 pairs of AISG male/female connectors
RET interface connector location	Bottom of the antenna
Total no. of internal RETs 617-894 MHz	1
Total no. of internal RETs 1695-2200 MHz	1
RET input operating voltage, vdc	10-30
RET max power consumption, idle state, W	≤ 2.0
RET max power consumption, normal operating conditions, W	≤ 10.0
RET communication protocol	Hardware AISG 3.0; firmware AISG 2.0, field-upgradable to AISG 3.0

RET and RF connector topology

Each RET device can be controlled via the designated external AISG connector as shown below:



Array topology

4 sets of radiating arrays R1: 617-894 MHz R2: 617-894 MHz B1: 1695-2200 MHz B2: 1695-2200 MHz	<table border="1"> <thead> <tr> <th>Band</th> <th>RF port</th> </tr> </thead> <tbody> <tr> <td>617-894</td> <td>1-2</td> </tr> <tr> <td>617-894</td> <td>3-4</td> </tr> <tr> <td>1695-2200</td> <td>5-6</td> </tr> <tr> <td>1695-2200</td> <td>7-8</td> </tr> </tbody> </table>	Band	RF port	617-894	1-2	617-894	3-4	1695-2200	5-6	1695-2200	7-8	
	Band	RF port										
617-894	1-2											
617-894	3-4											
1695-2200	5-6											
1695-2200	7-8											



ARCHITECTURAL REVIEW BOARD
CERTIFICATE OF APPROPRIATNESS

COA # _____
Zoning # _____
Assoc. Permit # _____

COMMUNITY DEVELOPMENT DEPARTMENT
18 Court Street, Lower Level
Warrenton, VA 20186
Phone: 540-347-2405
Email: planning@warrentonva.gov
Facsimile: 540-349-2414

The Architectural Review Board (ARB) meets every 4th Thursday at 7:00pm in Town Hall (18 Court Street). Applications requiring ARB are due by the 1st day of each month (or the first business day immediately following) prior to the meeting. Each applicant or a representative, who has the authority to commit the applicant to changes as recommended or required by the ARB are required to attend this meeting or the application will be deferred. Please read the Warrenton Historic District Guidelines for additional information Historic District requirements.

- The following materials are required in addition to a complete, signed application (check if submitted):
[] Photographs of the area of work.
[] Plans, drawings, product information sheets, and/or samples (Two hard/one digital copy).
[] Accompanying permit applications (if required; this application also serves as a zoning permit).

Project Owner

Address/Location: 34 N 4th St, Warrenton VA 20186 GPIN: 6984-43-7721-000
Name: Town of Warrenton Virginia Email: fcassidy@warrentonva.gov
Address: 21 Main St, Warrenton, VA 20186 Phone: (540) 347-1101

Applicant (If different then above)

Name: DISH Wireless, LLC. Email: doron.tauber@dish.com
Address: 8830 Stanford Blvd, Building 3, Ste 160, Columbia MD 21045 Phone: 202-277-8104

Applicant's Representative (If different then above. Must have authority to commit the applicant to make changes that may be suggested or required by the ARB)

Name: Nishka Hatten Email: nishka.hatten@kimley-horn.com
Address: 1801 Porter St, Baltimore MD 21230 Phone: 667-262-9357

Complete description of each modification or improvement

Proposed DISH telecommunications equipment on existing Town of Warrenton water tank.
Equipment to include (3) proposed panel antennas, jumpers, (6) RRUs, (3) OVPs, (3) hybrid cables, and ground equipment to include metal platform, PPC, equipment cabinet, power and telco conduit, fiber box, fiber NID and GPS unit. Overgrowth clearing and fence repair as needed.

Is there an application relevant to this property pending or contemplated before another Town Board?
Yes [] No [] If so, specify: Zoning/BP application submitted, pending this COA and lease execution for approval.

Frank Cassidy Digitally signed by Frank Cassidy
Date: 2023.06.21 10:18:44 -04'00'
Signature of Property Owner
Frank Cassidy
Name (Print or Type)

Nishka Hatten Digitally signed by Nishka Hatten
Date: 2023.06.19 16:56:38 -04'00'
Signature of Applicant/Agent
Nishka Hatten
Name (Print or Type)



DISH Wireless L.L.C. SITE ID:

DCWDC00816B

DISH Wireless L.L.C. SITE ADDRESS:

**34 N 4th STREET
WARRENTON, VA 20186**

VIRGINIA CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2015 VA CONSTRUCTION CODE/2015 IBC W/ VA AMENDMENTS
MECHANICAL	2015 VA CONSTRUCTION CODE/2015 IMC W/ VA AMENDMENTS
ELECTRICAL	2015 VA CONSTRUCTION CODE/2014 NEC W/ VA AMENDMENTS

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL AND ENLARGED SITE PLAN
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

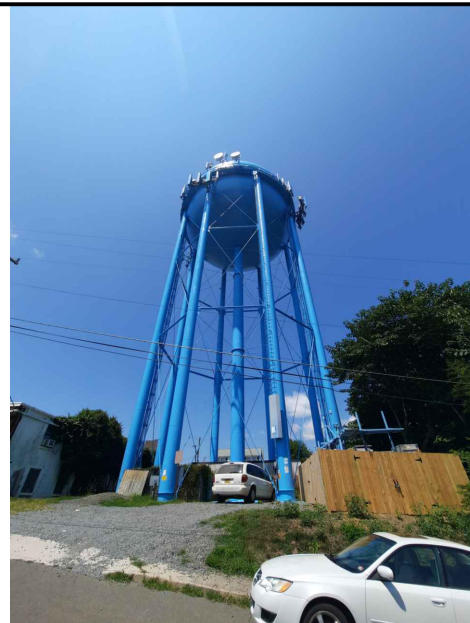
SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- TOWER SCOPE OF WORK:**
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
 - INSTALL PROPOSED JUMPERS
 - INSTALL (6) PROPOSED RRU's (2 PER SECTOR)
 - INSTALL (3) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
 - INSTALL (3) PROPOSED HYBRID CABLE

- GROUND SCOPE OF WORK:**
- REPAIR EXISTING FENCE
 - REMOVE EXISTING OVERGROWTH AND ADD GRAVEL AS NEEDED
 - INSTALL (1) PROPOSED METAL PLATFORM
 - INSTALL (1) PROPOSED PPC CABINET
 - INSTALL (1) PROPOSED EQUIPMENT CABINET
 - INSTALL (1) PROPOSED POWER CONDUIT
 - INSTALL (1) PROPOSED TELCO CONDUIT
 - INSTALL (1) PROPOSED TELCO-FIBER BOX
 - INSTALL (1) PROPOSED GPS UNIT
 - INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)

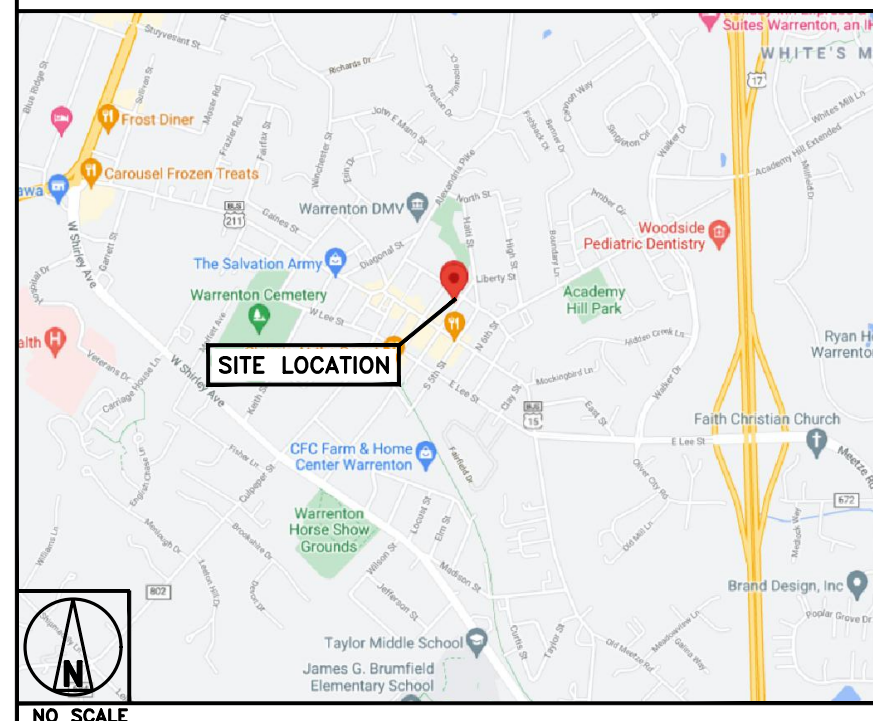
SITE PHOTO



DIRECTIONS

- DIRECTIONS FROM DULLES INTERNATIONAL AIRPORT:**
- HEAD WEST
 - KEEP RIGHT TO CONTINUE TOWARD RUDDER RD
 - CONTINUE ONTO RUDDER RD
 - TURN LEFT ONTO AUTOPILOT DR
 - TURN LEFT ONTO AVIATION DR
 - USE THE LEFT 2 LANES TO MERGE ONTO VA-28 S/SULLY RD VIA THE RAMP TO I-66 W
 - MERGE ONTO VA-28 S/SULLY RD
 - USE THE RIGHT LANE TO TAKE THE RAMP ONTO I-66 W
 - KEEP LEFT TO STAY ON I-66 W
 - USE THE RIGHT 2 LANES TO TAKE EXIT 43A TO MERGE ONTO US-29 S TOWARD GAINESVILLE/WARRENTON
 - USE THE RIGHT 2 LANES TO TURN SLIGHTLY RIGHT ONTO US-15 BUS S/US-29 BUS S
 - TURN LEFT ONTO US-15 BUS S/US-211 BUSINESS/BLACKWELL RD
 - CONTINUE TO FOLLOW US-15 BUS S/US-211 BUSINESS
 - TURN LEFT ONTO HORNER ST
 - TURN RIGHT ONTO N 4TH ST
 - DESTINATION WILL BE ON THE RIGHT

VICINITY MAP



UNDERGROUND SERVICE ALERT - VA 811
UTILITY NOTIFICATION CENTER OF VIRGINIA
(800) 552-7001
WWW.VA811.COM



CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER: TOWN OF WARRINGTON
ADDRESS: 360 FALMOUTH STREET
WARRENTON, VA 20186

TOWER TYPE: WATER TANK

COUNTY: FAUQUIER

LATITUDE (NAD 83): 38° 42' 49.00" N
38.713611° N

LONGITUDE (NAD 83): 77° 47' 34.00" W
77.792778° W

ZONING JURISDICTION: FAQUIER COUNTY

ZONING DISTRICT: CB

PARCEL NUMBER: 6984-43-7721-000

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: DOMINION ENERGY

FIBER PROVIDER: COMCAST

PROJECT DIRECTORY

APPLICANT: DISH Wireless L.L.C.
6700 ALEXANDER BELL DRIVE
SUITE 221 COLUMBIA, MD 21046

TOWER OWNER: TOWN OF WARRINGTON
360 FALMOUTH STREET
WARRENTON, VA 20186

SITE DESIGNER: KIMLEY-HORN & ASSOCIATES
COA: 407002521
3875 EMBASSY PKWY, SUITE 280
AKRON, OH 44333
(216) 505-7771

SITE ACQUISITION: DORON TAUBER
DORON.TAUBER@DISH.COM

CONSTRUCTION MANAGER: LESTER BUTLER
LESTER.BUTLER@DISH.COM

RF ENGINEER: SHAKEEL AHMED
SHAKEELAHMED@DISH.COM

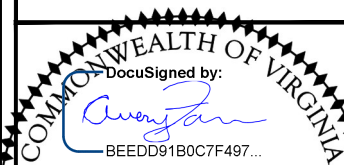
Item 6.



6700 ALEXANDER BELL DR SUITE 221
COLUMBIA, MD 21046



COA: 407002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601



AVERY VERNON FANN
Lic. No. 0402055385

2/21/2023

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DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	KJC	AVF

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3	02/17/2023	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
TITLE SHEET

SHEET NUMBER

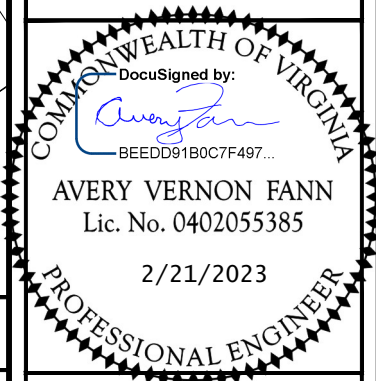
T-1



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APPROVED BY: AVF

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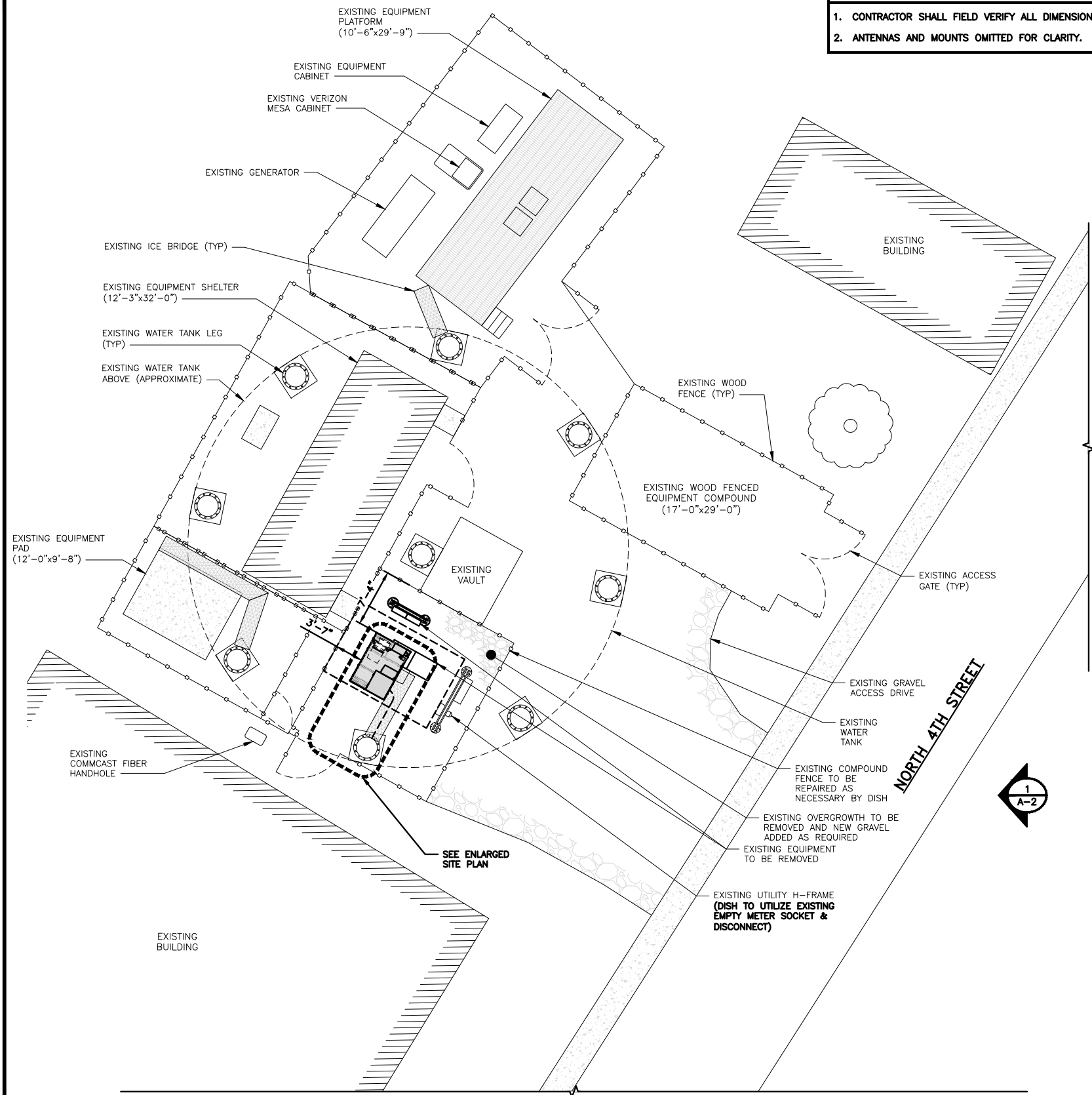
DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
OVERALL AND ENLARGED SITE PLAN

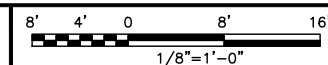
SHEET NUMBER
A-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



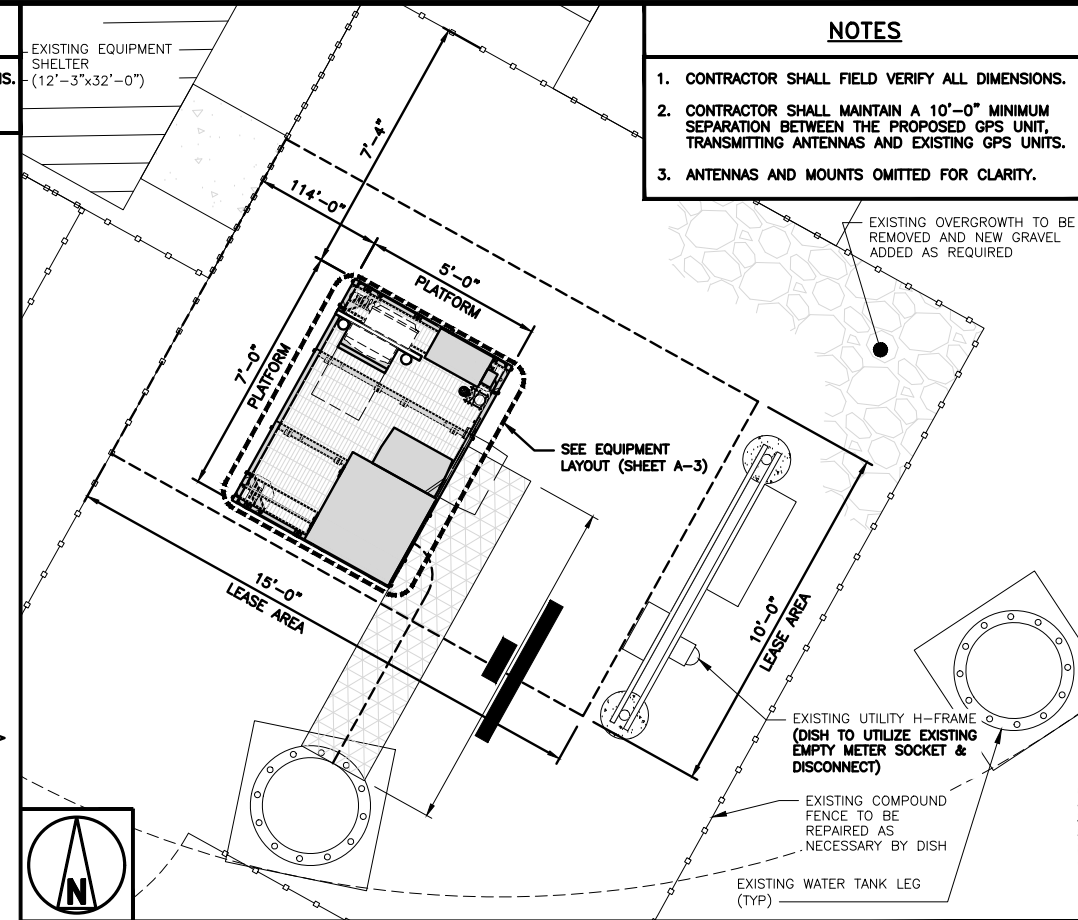
OVERALL SITE PLAN



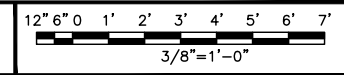
1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



ENLARGED SITE PLAN



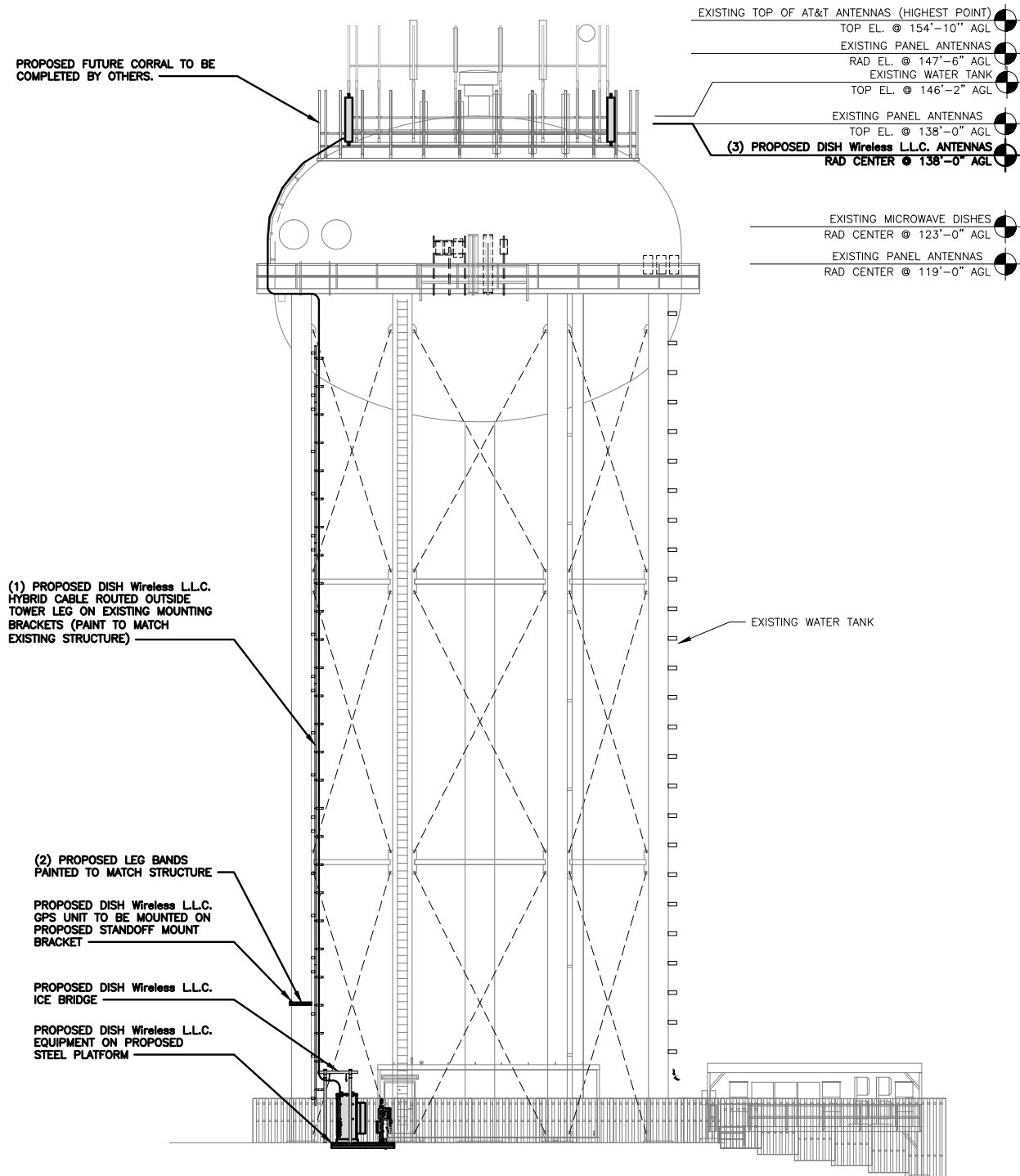
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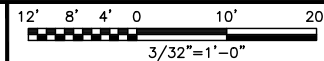
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NOTES

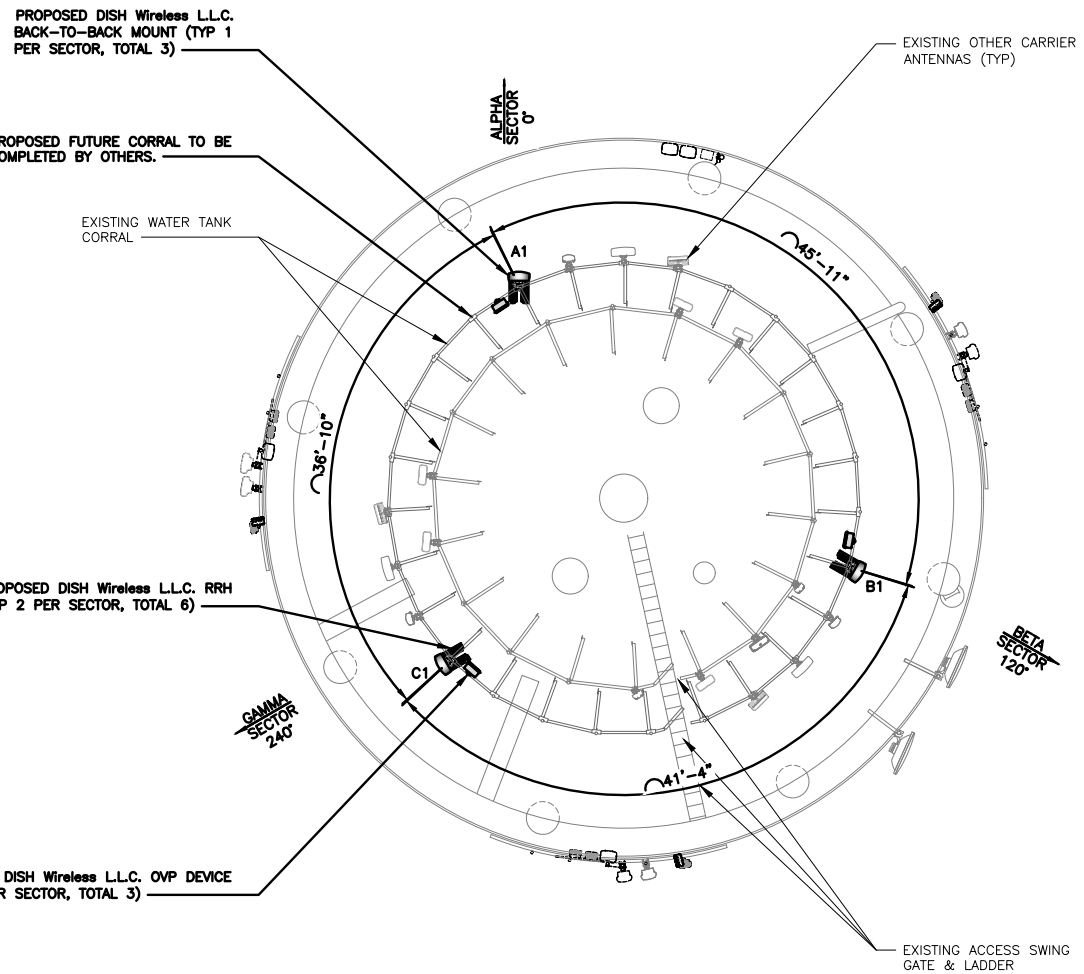
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.
4. ANTENNAS TO BE INSTALLED VERTICALLY CENTERED ON MOUNTS. SAFETY CLIMB AND CLIMBING PATH MUST REMAIN CLEAR.



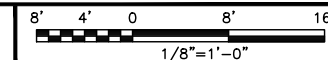
PROPOSED EAST ELEVATION



1



ANTENNA LAYOUT



2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	JMA - MX08FR0665-21	5G	72.0" x 20.0"	0°	138'-0"	(3)HIGH-CAPACITY HYBRID CABLE (180' LONG)
BETA	B1	PROPOSED	JMA - MX08FR0665-21	5G	72.0" x 20.0"	120°	138'-0"	
GAMMA	C1	PROPOSED	JMA - MX08FR0665-21	5G	72.0" x 20.0"	240°	138'-0"	

SECTOR	POSITION	OVP			
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (HxWxD)
ALPHA	A1	PROPOSED	RAYCAP - RDIDC-3045-PF-48	5G	16.58" x 14.58" x 8.46"
BETA	B1	PROPOSED	RAYCAP - RDIDC-3045-PF-48	5G	16.58" x 14.58" x 8.46"
GAMMA	C1	PROPOSED	RAYCAP - RDIDC-3045-PF-48	5G	16.58" x 14.58" x 8.46"

SECTOR	POSITION	RRH	
		MANUFACTURER - MODEL NUMBER	TECHNOLOGY
ALPHA	A1	FUJITSU - TA08025-B605	5G
	A1	FUJITSU - TA08025-B604	5G
BETA	B1	FUJITSU - TA08025-B605	5G
	B1	FUJITSU - TA08025-B604	5G
GAMMA	C1	FUJITSU - TA08025-B605	5G
	C1	FUJITSU - TA08025-B604	5G

- NOTES**
1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

ANTENNA SCHEDULE

NO SCALE

3

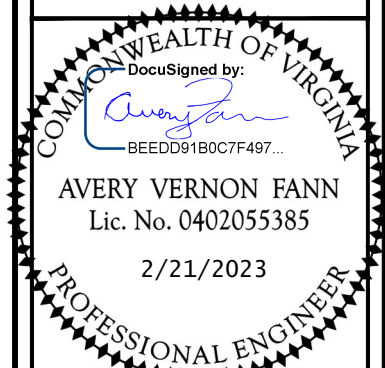
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LMS KJC AVF

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A&E PROJECT NUMBER
KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
ELEVATION, ANTENNA
LAYOUT AND SCHEDULE

SHEET NUMBER

A-2

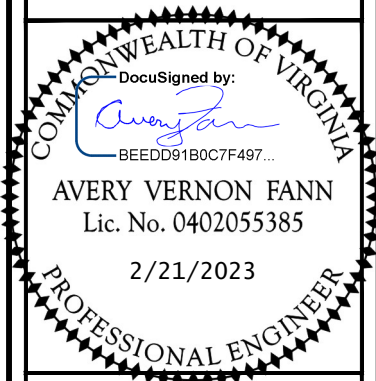
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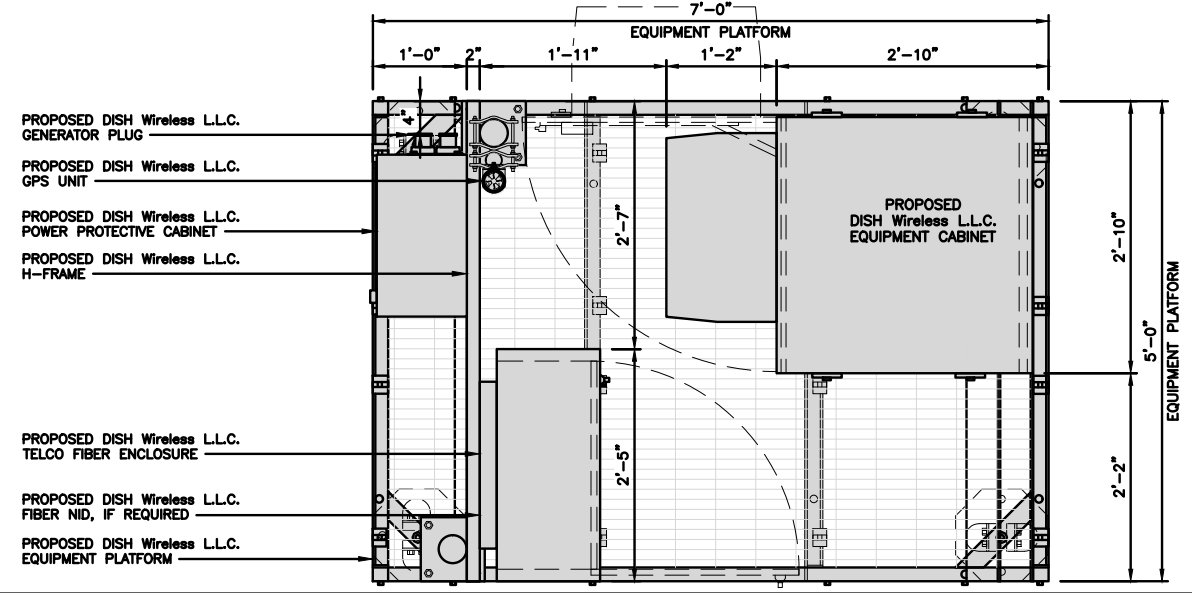
SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

SHEET NUMBER

A-3

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY

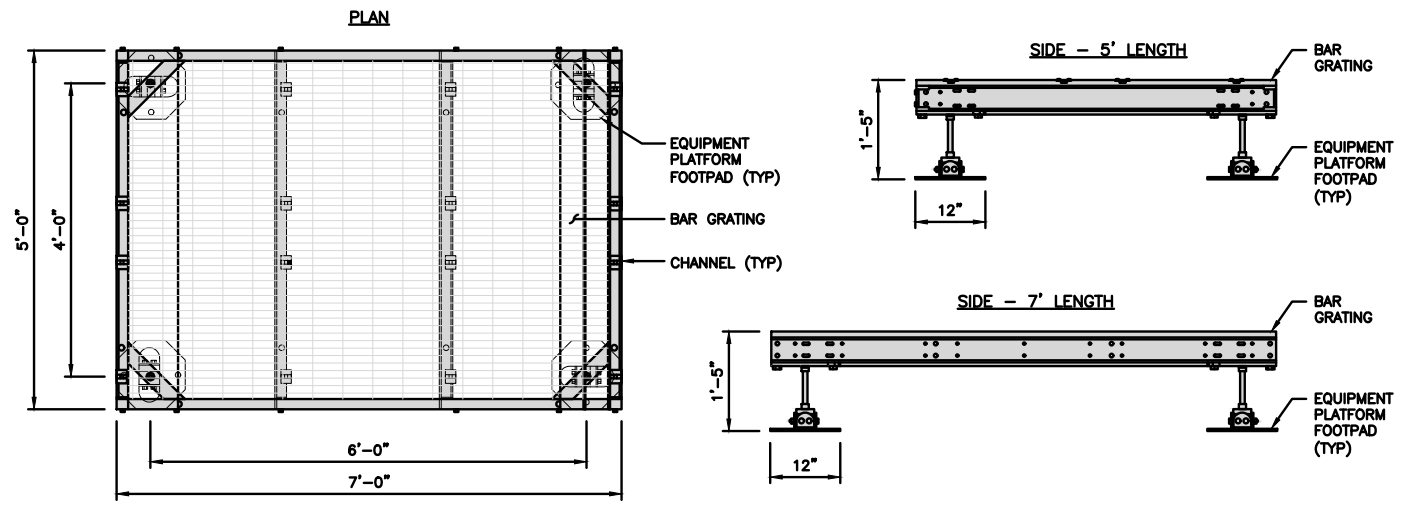


PLATFORM EQUIPMENT PLAN

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

NOTE:
1. GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"
2. PLATFORM TO BE LEVEL WITHIN 1"

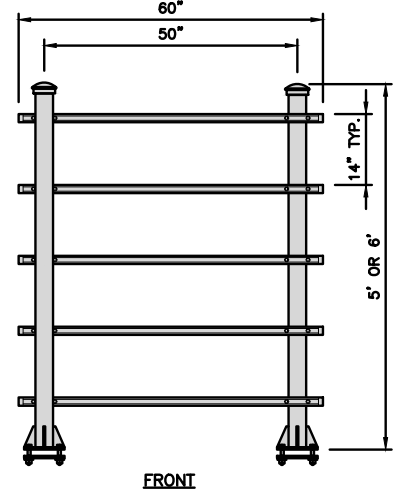
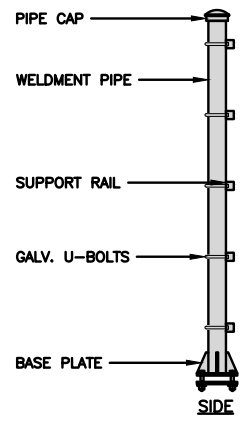


PLATFORM DETAIL

NO SCALE 2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs

NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

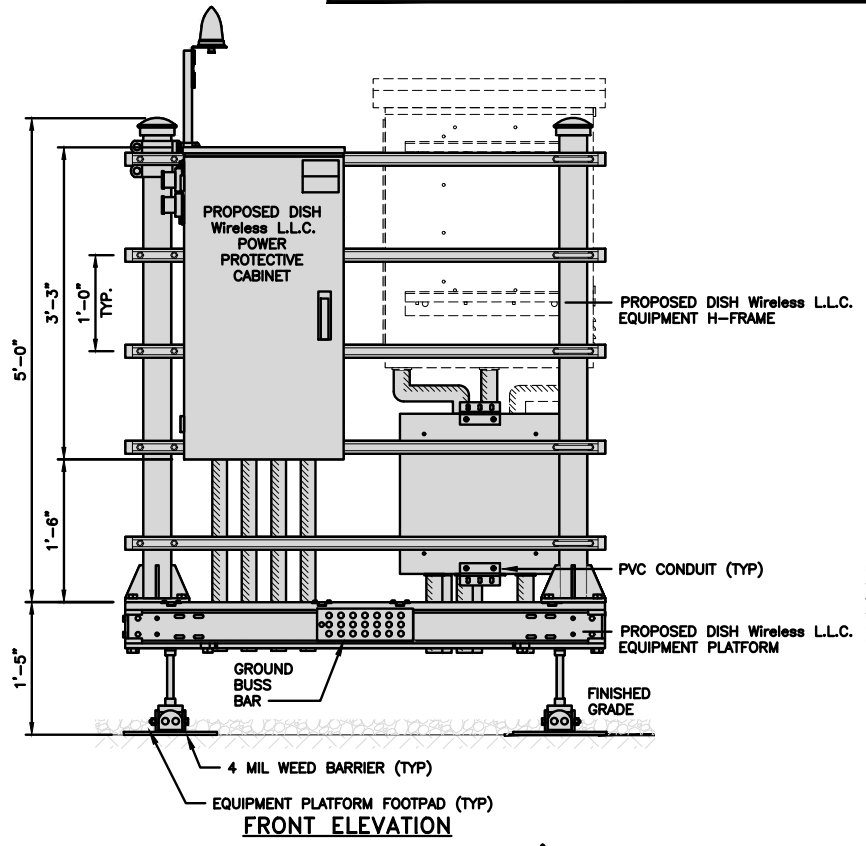


H-FRAME DETAIL

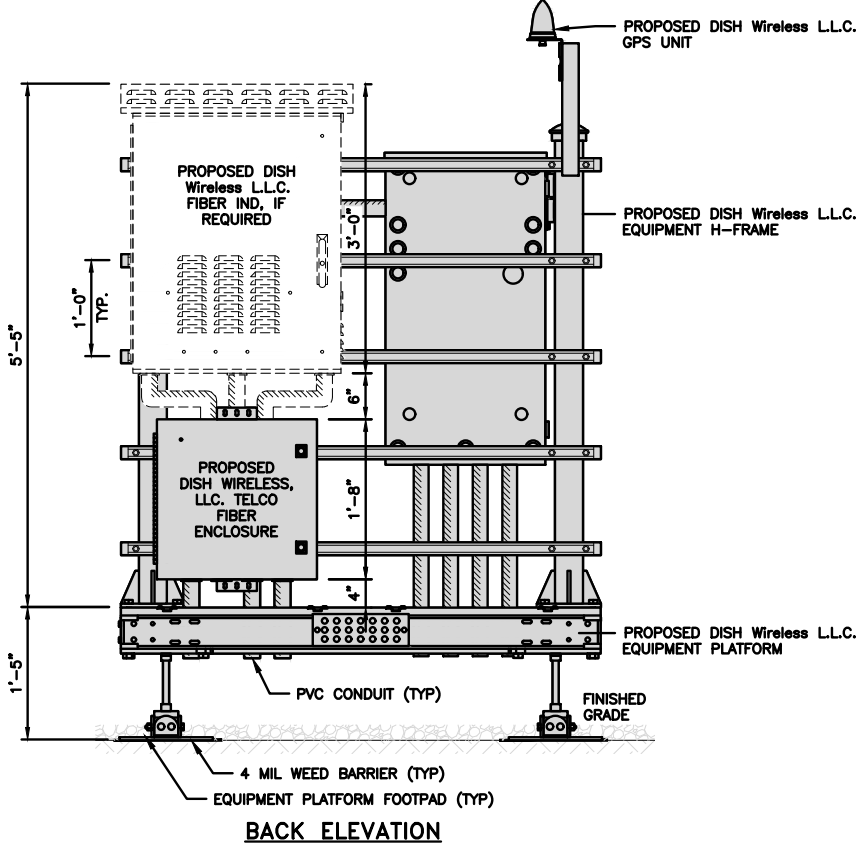
NO SCALE 3

NOT USED

NO SCALE 4

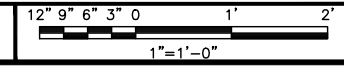


FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION



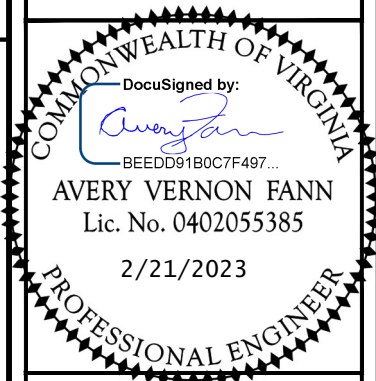
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KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-4

CHARLES INDUSTRY HEX CUBE-PM639155N4	
DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 LBS

CABINET DETAIL NO SCALE 1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

POWER PROTECTION CABINET (PPC) DETAIL NO SCALE 2

NOT USED

NOT USED NO SCALE 3

NOT USED

NOT USED NO SCALE 4

NOT USED

NOT USED NO SCALE 5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

FIBER TELCO ENCLOSURE DETAIL NO SCALE 6

NOT USED

NOT USED NO SCALE 7

NOT USED

NOT USED NO SCALE 8

NOT USED

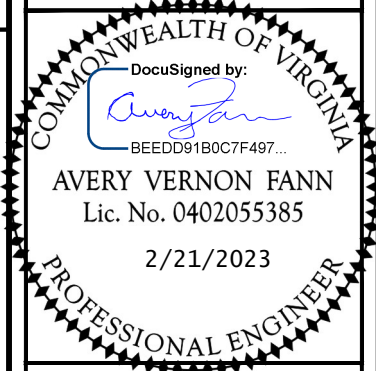
NOT USED NO SCALE 9



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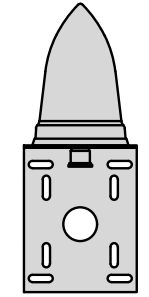
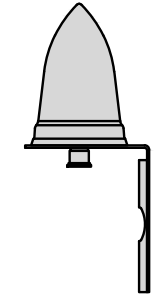
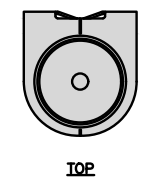
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SHEET TITLE
EQUIPMENT DETAILS

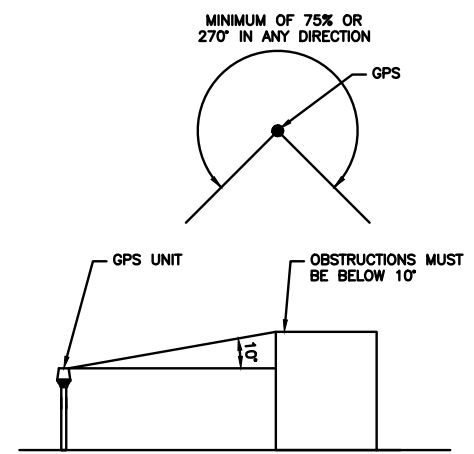
SHEET NUMBER
A-5

PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



GPS DETAIL

NO SCALE 2



GPS MINIMUM SKY VIEW REQUIREMENTS

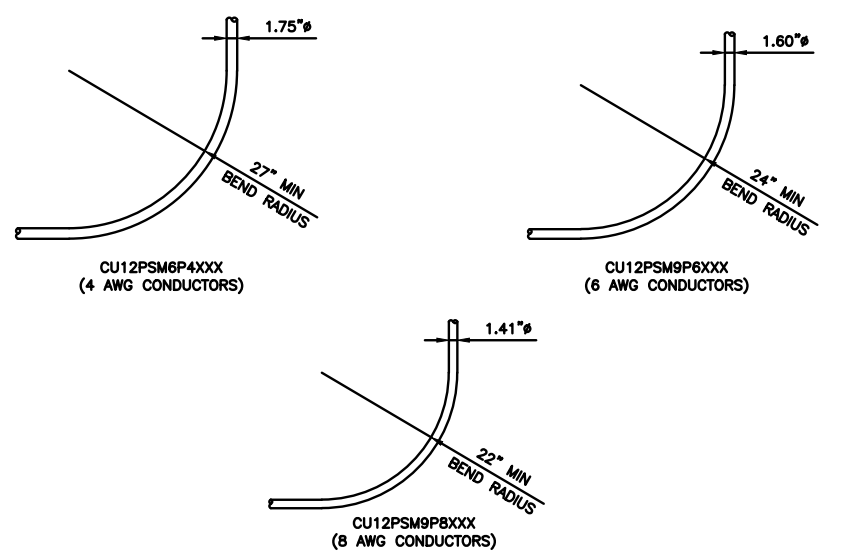
NO SCALE 3

DESC	QTY	
SITE ID #:	DCWDC00816B	
TWR TYPE:	WATER TANK	
HYBRID BEND RADIUS	30"	The preparer must determine the lengths below.
RAD CENTER (ft)	138.0	This is the RAD center for the antennas on towers. For a rooftop, this is the total length of all vertical sections of the hybrid.
ICE BRIDGE HEIGHT (ft)	10.0	This is the height of the bridge coverings.
ICE BRIDGE LENGTH (ft)	9.5	This is the length of the total ice bridge coverings, if more than one ice bridge is used or total horizontal lengths of hybrid if this is inside a building.
LENGTH ACROSS PLATFORM (ft)	3.0	This is the length from the cabinet to the first bend up the ice bridge or inside a radio room.
LENGTH FROM TOWER TOP TO OVP (ft)	3.0	This is the horizontal length from the tower to the OVP at the antenna level or the total horizontal lengths of hybrid on a building or large self supporting tower.
VERTICAL LENGTH OF HYBRID INTO TOWER TOP OVP (ft)	1.0	This is the vertical length of hybrid that comes out to the tower top OVP to the beginning of the first bend that is going into the monopole port.
	LENGTH (ft)	
Additional Excess Hybrid to be added (To be determined by preparer)	0	
Total Hybrid Length to Order (Rounded up to nearest whole number)	171	

CU12PSM9P6-171	Hybrid Part Number
-----------------------	--------------------

HYBRID CALCULATION

NO SCALE 1



CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES

NO SCALE 4

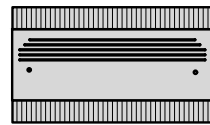
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NO SCALE 5

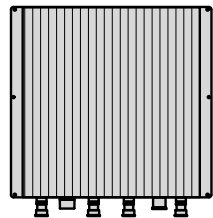
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NO SCALE 6

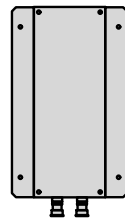
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



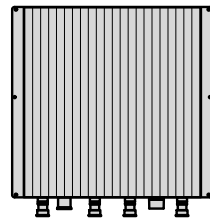
PLAN



BACK



SIDE



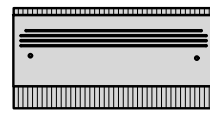
FRONT

RRH DETAIL

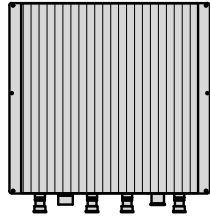
NO SCALE

1

FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



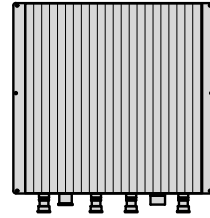
PLAN



BACK



SIDE



FRONT

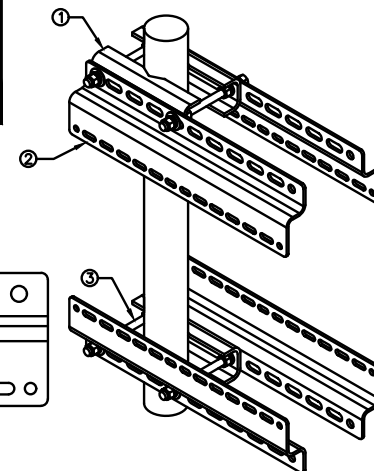
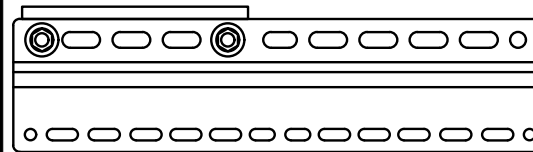
RRH DETAIL

NO SCALE

2

SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

RRH MOUNT DETAIL

NO SCALE

3

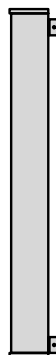
JMA WIRELESS MX08FR0665-21 ANTENNA	
DIMENSIONS (HxWxD)	72.0"x20.0"x8.0"
TOTAL WEIGHT	64.5 LB
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE



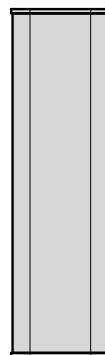
PLAN



BACK



SIDE



FRONT

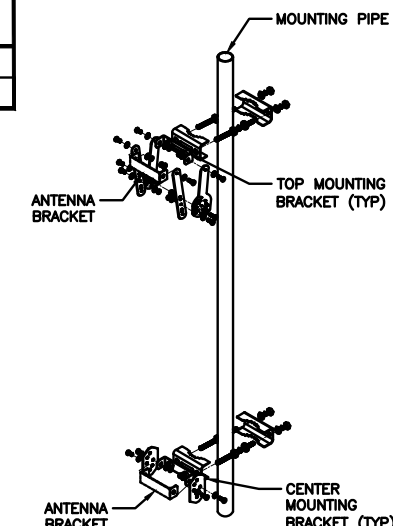
ANTENNA DETAIL

NO SCALE

5

JMA ANTENNA MOUNTING BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5 TO 4.5 INCHES

NOTE:
KIT #91900318: TOP AND BOTTOM BRACKETS
FOR 4-, 6-, AND 8-FOOT ANTENNAS
ANTENNA BRACKET NOT PART OF KIT

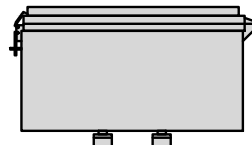


ANTENNA BRACKET DETAIL

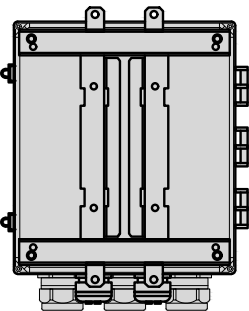
NO SCALE

6

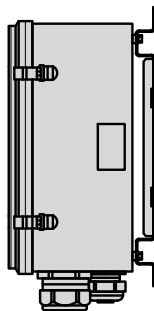
RAYCAP RDIC-3045-PF-48 SURGE PROTECTION DEVICE (OVP)	
DIMENSIONS (HxWxD)	16.58"x14.58"x8.46"
WEIGHT	21.85 lbs



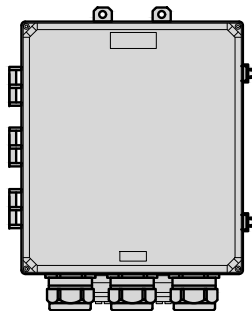
PLAN



BACK



SIDE



FRONT

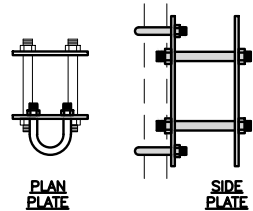
SURGE PROTECTION DEVICE DETAIL (OVP)

NO SCALE

7

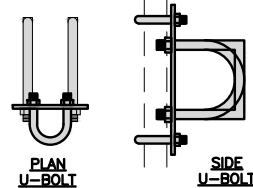
COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



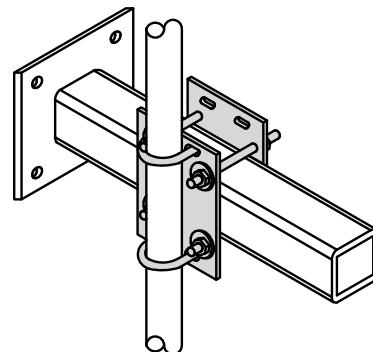
PLAN
U-BOLT

SIDE
U-BOLT



PLAN
U-BOLT

SIDE
U-BOLT



RRH/OVP MOUNT DETAIL

NO SCALE

8

NOT USED

NO SCALE

9

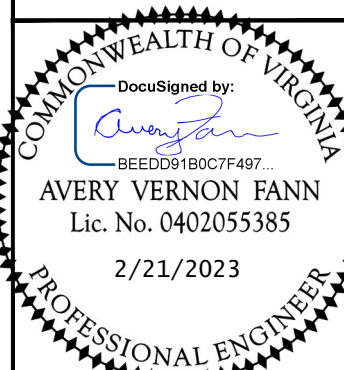
Item 6.



6700 ALEXANDER BELL DR SUITE 221
COLUMBIA, MD 21046



COA: 407002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601



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DRAWN BY: CHECKED BY: APPROVED BY:
LMS KJC AVF

APPLICATION REV #: 1

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A&E PROJECT NUMBER
KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
EQUIPMENT DETAILS

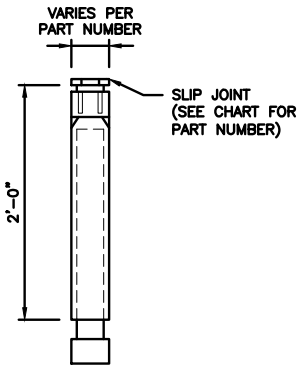
SHEET NUMBER

A-6

80

CARLON EXPANSION FITTINGS

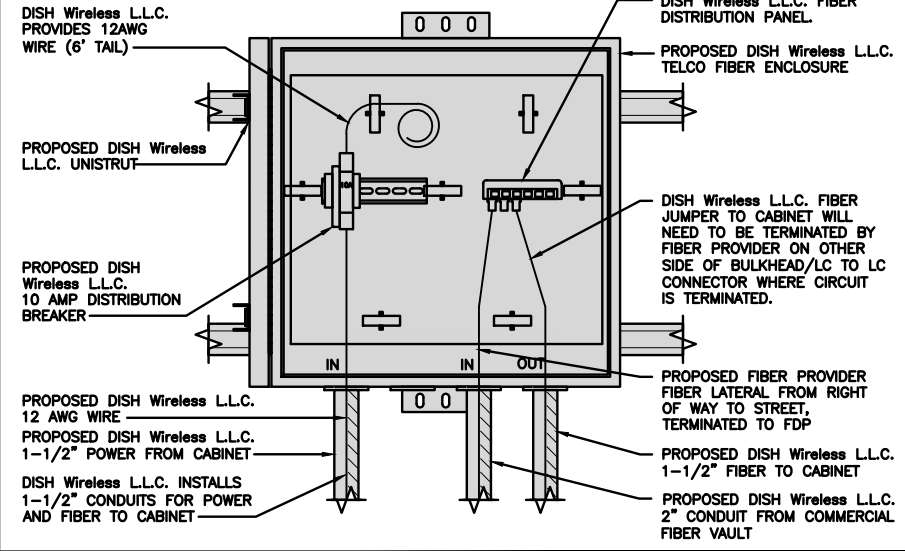
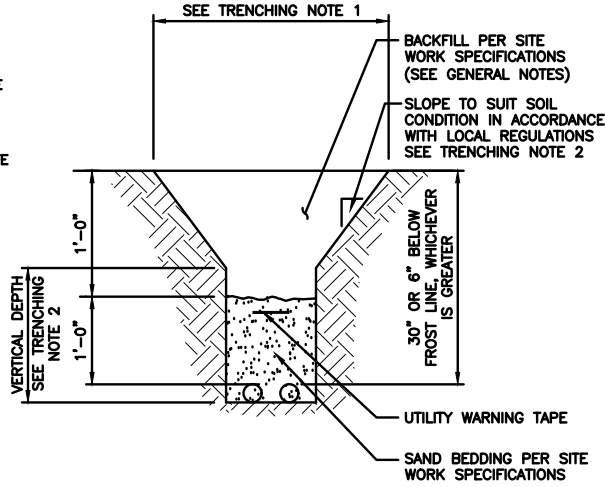
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"



NOTE: CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

TRENCHING NOTES

- CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
- TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
- ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



EXPANSION JOINT DETAIL

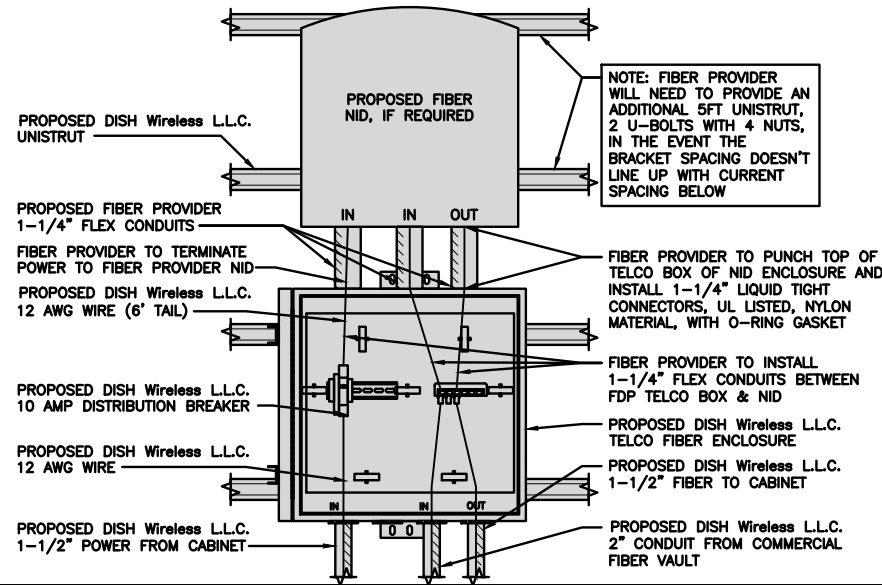
NO SCALE 1

TYPICAL UNDERGROUND TRENCH DETAIL

NO SCALE 2

DARK TELCO BOX – INTERIOR WIRING LAYOUT

NO SCALE 3



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL)

NO SCALE 4

NOT USED

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8

NOT USED

NO SCALE 9

Item 6.

6700 ALEXANDER BELL DR SUITE 221
COLUMBIA, MD 21046

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RALEIGH, NC 27601

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LMS	KJC	AVF
APPLICATION REV #:		1

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A&E PROJECT NUMBER
KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
ELECTRICAL
DETAILS

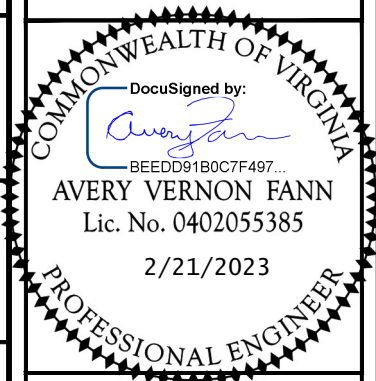
SHEET NUMBER
E-2



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APPLICATION REV #: 1

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A&E PROJECT NUMBER
KHBAL-76

DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3

NOTES

THE (2) CONDUITS WITH (4) CURRENT CARRYING CONDUCTORS EACH, SHALL APPLY THE ADJUSTMENT FACTOR OF 80% PER 2014/17 NEC TABLE 310.15(B)(3)(a) OR 2020 NEC TABLE 310.15(C)(1) FOR UL1015 WIRE.

#12 FOR 15A-20A/1P BREAKER: 0.8 x 30A = 24.0A
#10 FOR 25A-30A/2P BREAKER: 0.8 x 40A = 32.0A
#8 FOR 35A-40A/2P BREAKER: 0.8 x 55A = 44.0A
#6 FOR 45A-60A/2P BREAKER: 0.8 x 75A = 60.0A

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.
0.5" CONDUIT - 0.122 SQ. IN AREA
0.75" CONDUIT - 0.213 SQ. IN AREA
2.0" CONDUIT - 1.316 SQ. IN AREA
3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.
#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN
#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND
TOTAL = 0.0633 SQ. IN

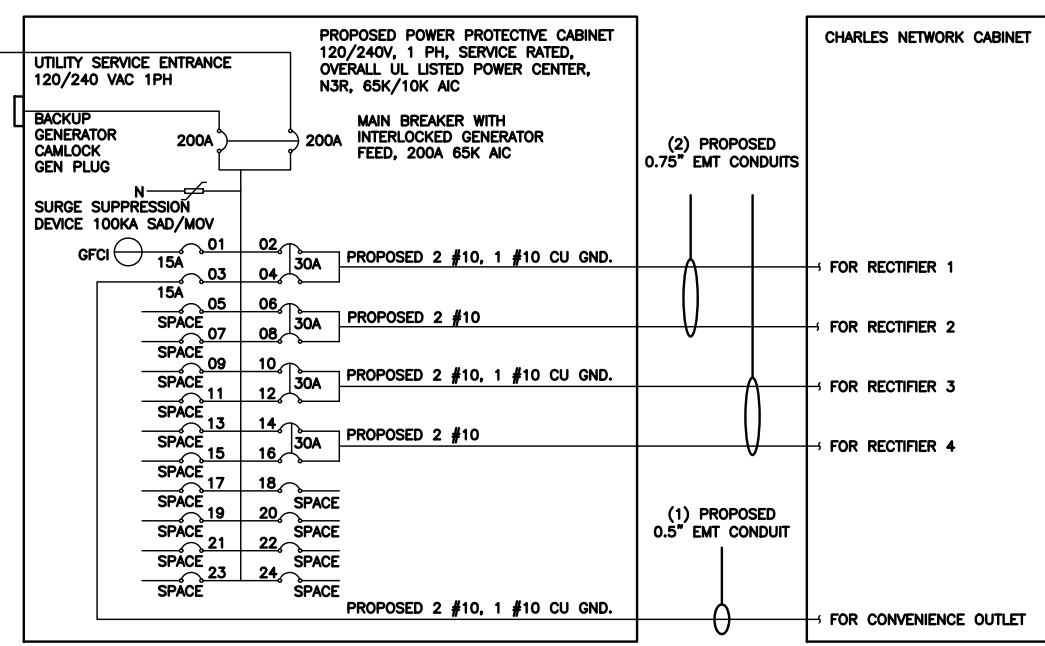
0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (2 CONDUITS): USING UL1015, CU.
#10 - 0.0266 SQ. IN X 4 = 0.1064 SQ. IN
#10 - 0.0082 SQ. IN X 1 = 0.0082 SQ. IN <BARE GROUND
TOTAL = 0.1146 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (5) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

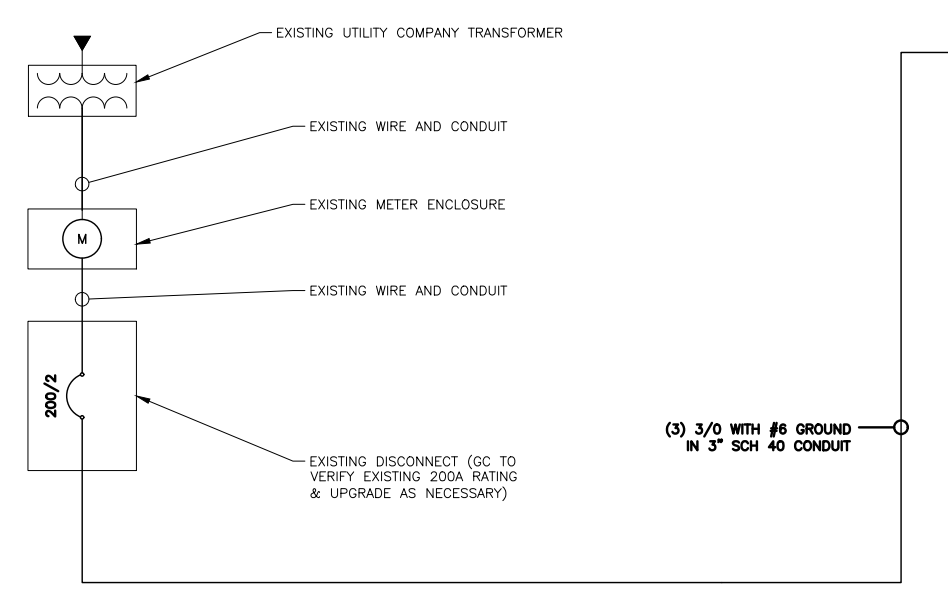
PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.
3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN
#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND
TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.



NOTE:
BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:
(4) 30A, 2P BREAKER - SQUARE D P/N:Q0230
(1) 15A, 1P BREAKER - SQUARE D P/N:Q0115



PPC ONE-LINE DIAGRAM

NO SCALE 1

PROPOSED CHARLES PANEL SCHEDULE										
LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
PPC GFCI OUTLET	180	180	15A	1	A	2	30A	2880	2880	ABB/GE INFINITY RECTIFIER 1
CHARLES GFCI OUTLET	180	180	15A	3	B	4	30A	2880	2880	ABB/GE INFINITY RECTIFIER 1
-SPACE-				5	A	6	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2
-SPACE-				7	B	8	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2
-SPACE-				9	A	10	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3
-SPACE-				11	B	12	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3
-SPACE-				13	A	14	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4
-SPACE-				15	B	16	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS		180	180					11520	11520	
200A MCB, 1φ, 24 SPACE, 120/240V				L1	L2					
MB RATING: 65,000 AIC				11700	11700					
				98	98					
				98						
				123						

PANEL SCHEDULE

NO SCALE 2

NOT USED

NO SCALE 3



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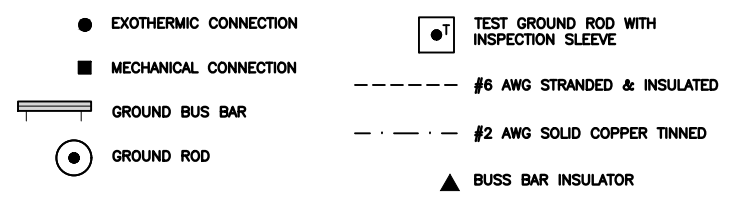
DISH Wireless L.L.C.
PROJECT INFORMATION

DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

G-1

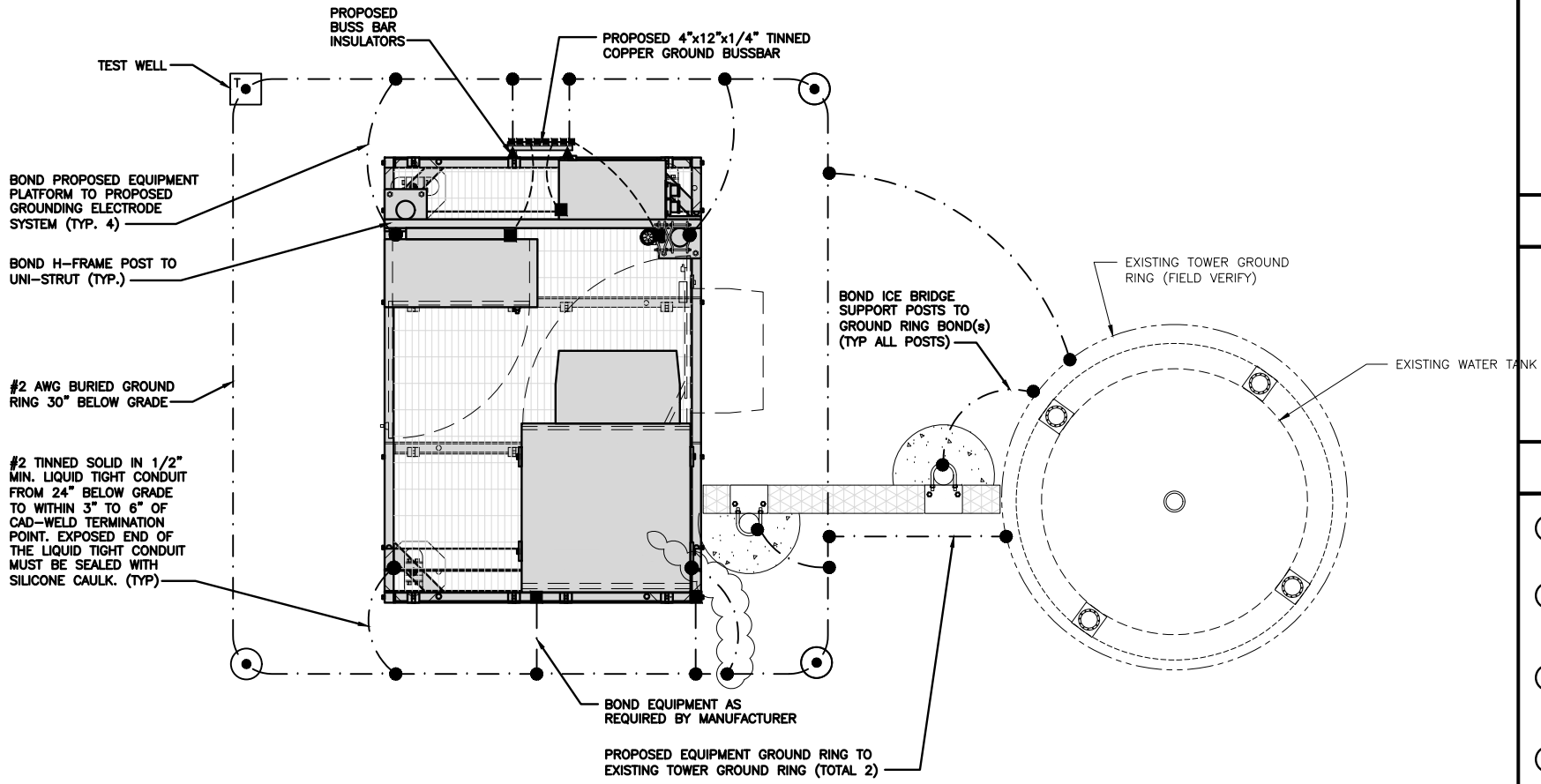


GROUNDING LEGEND

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
- ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

- (A) **EXTERIOR GROUND RING:** #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) **TOWER GROUND RING:** THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) **INTERIOR GROUND RING:** #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) **BOND TO INTERIOR GROUND RING:** #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- (E) **GROUND ROD:** UL LISTED COPPER CLAD STEEL, MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) **CELL REFERENCE GROUND BAR:** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G) **HATCH PLATE GROUND BAR:** BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) **EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- (I) **TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J) **FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (K) **INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L) **FENCE AND GATE GROUNDING:** METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M) **EXTERIOR UNIT BONDS:** METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE
- (N) **ICE BRIDGE SUPPORTS:** EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (O) **DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR**
- (P) **TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.**

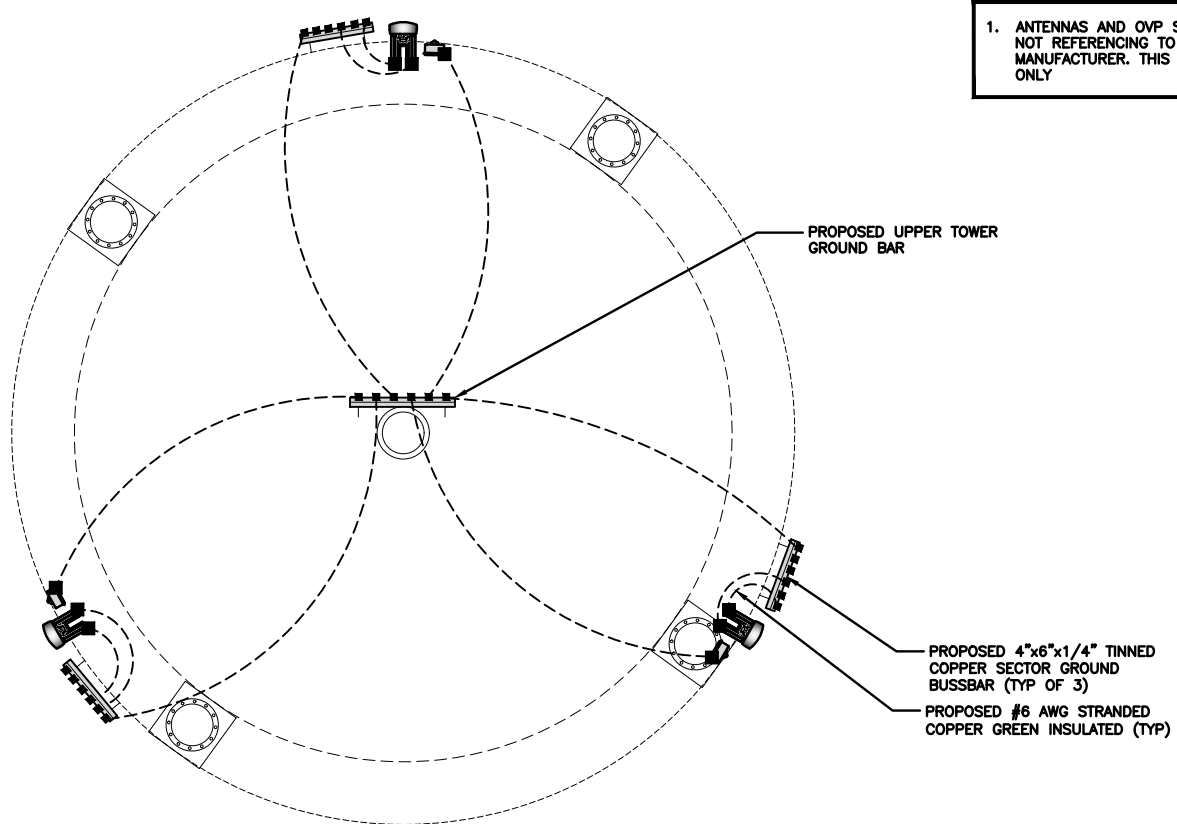


TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1

NOTES

- ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE ONLY



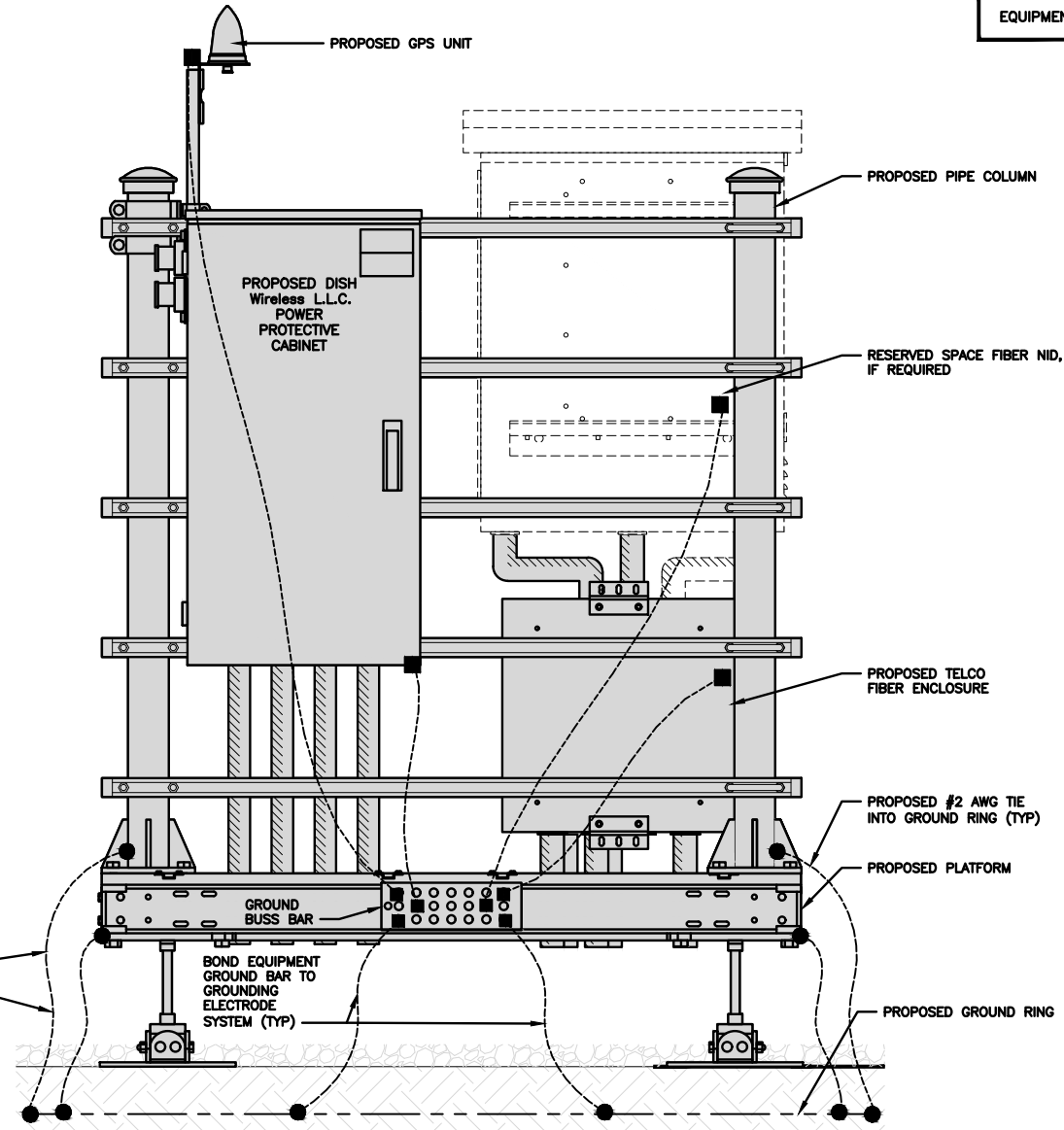
TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2

GROUNDING KEY NOTES

NO SCALE 3

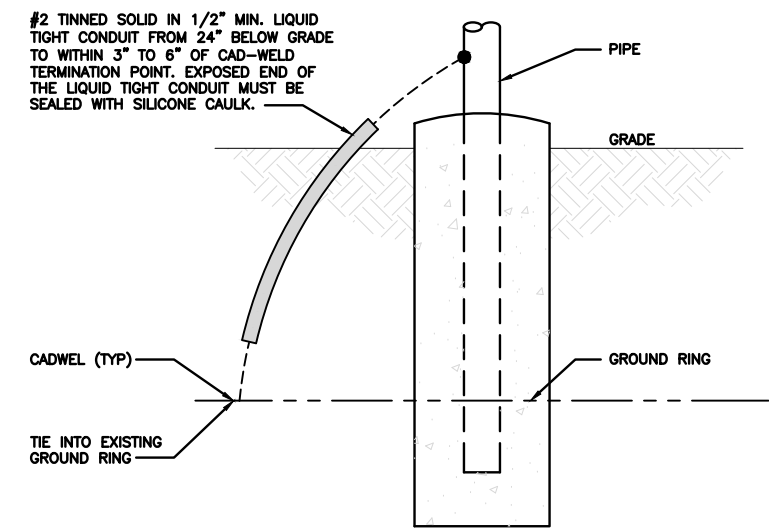
NOTES
EQUIPMENT CABINET OMITTED FOR CLARITY



#2 TINNED SOLID IN 1/2" MIN. LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (TYP)

H-FRAME GROUNDING DETAIL

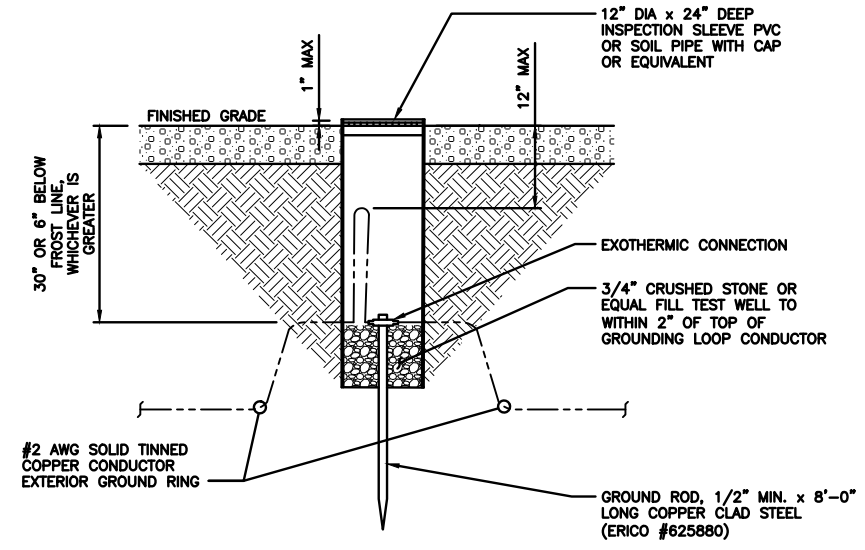
NO SCALE 1



#2 TINNED SOLID IN 1/2" MIN. LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK.

TRANSITIONING GROUND DETAIL

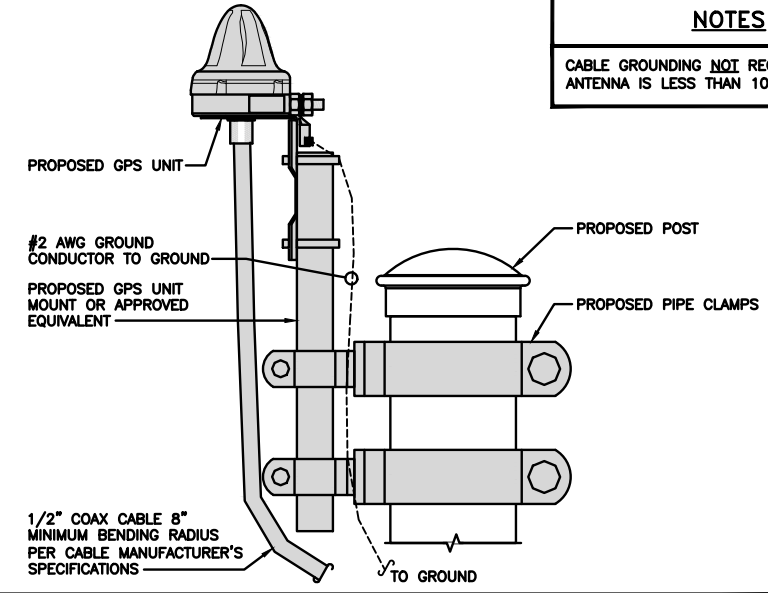
NO SCALE 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

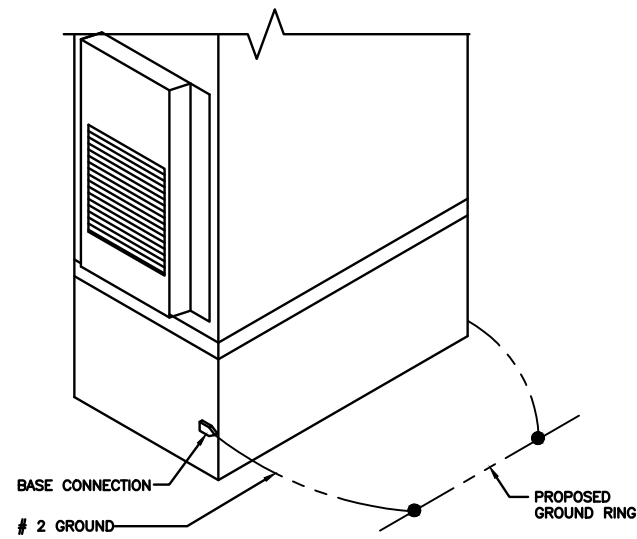
NO SCALE 5

NOTES
CABLE GROUNDING NOT REQUIRED WHEN ANTENNA IS LESS THAN 10' FROM CABINET



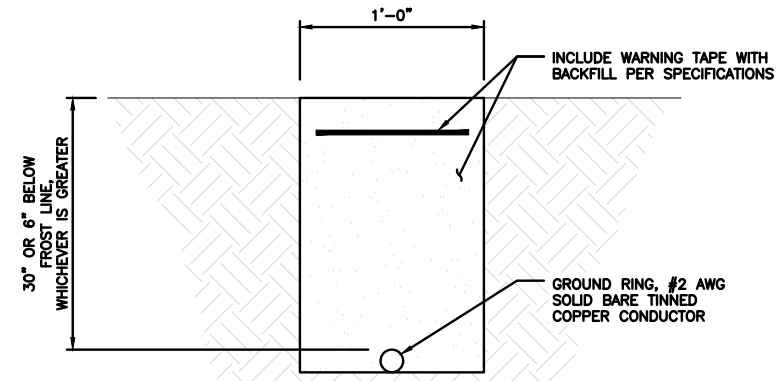
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3



TYPICAL GROUND RING TRENCH

NO SCALE 6

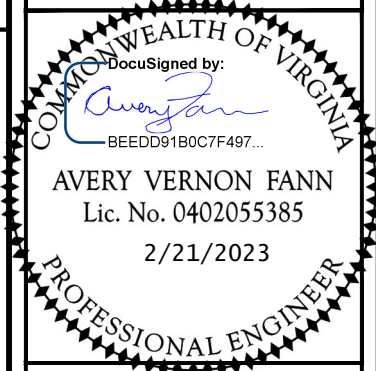
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DRAWN BY: LMS CHECKED BY: KJC APPROVED BY: AVF

APPLICATION REV #: 1

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A&E PROJECT NUMBER
KHBAL-76

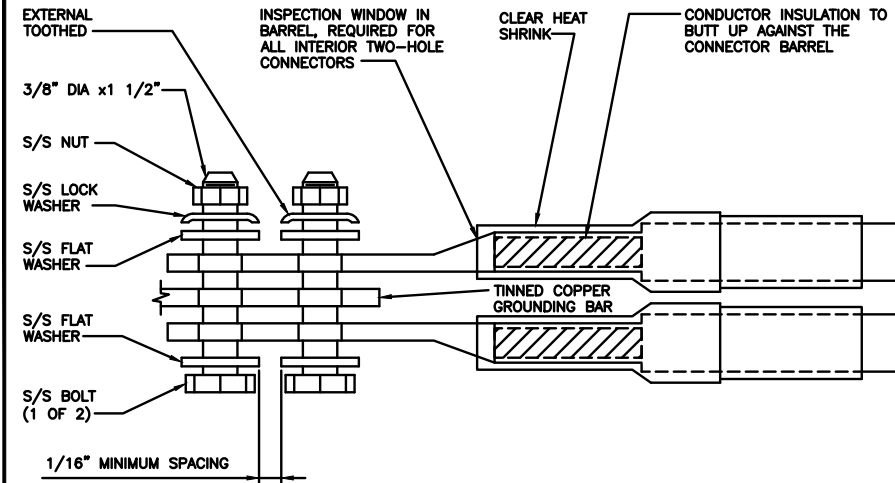
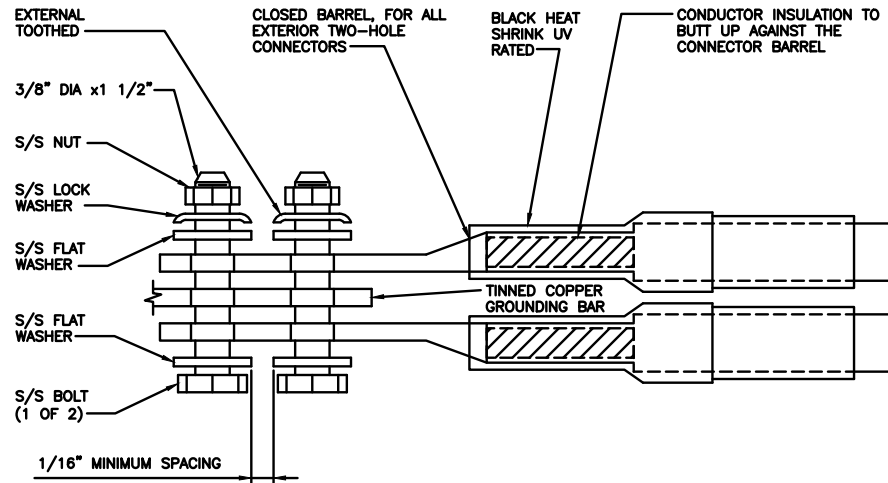
DISH Wireless L.L.C.
PROJECT INFORMATION
DCWDC00816B
34 N 4th STREET
WARRENTON, VA 20186

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



TYPICAL GROUNDING NOTES

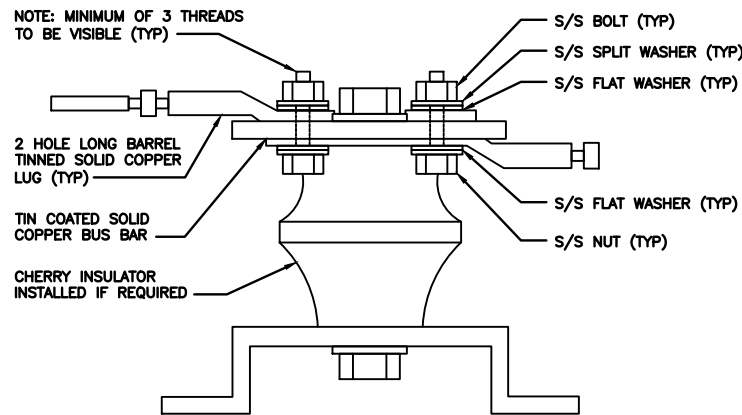
NO SCALE 1

TYPICAL EXTERIOR TWO HOLE LUG

NO SCALE 2

TYPICAL INTERIOR TWO HOLE LUG

NO SCALE 3



LUG DETAIL

NO SCALE 4

NOT USED

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8

NOT USED

NO SCALE 9

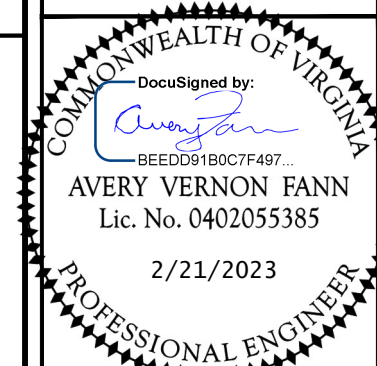
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GROUNDING DETAILS

SHEET NUMBER

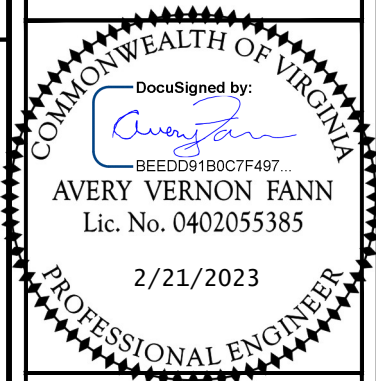
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SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

HYBRID/DISCREET CABLES 3/4" TAPE WIDTHS WITH 3/4" SPACING

LOW-BAND RRH (600 MHz N71 BASEBAND) + (850 MHz N26 BAND) + (700 MHz N29 BAND) - OPTIONAL PER MARKET
ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BAND)

ALPHA RRH				BETA RRH				GAMMA RRH			
PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT
RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
	WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

MID-BAND RRH (AWS BANDS N66+N70)
ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BANDS)

RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
	WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

HYBRID/DISCREET CABLES
INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.

EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS.

EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS.

EXAMPLE 3 - MAIN COAX WITH GROUND MOUNTED RRHS.

EXAMPLE 1	EXAMPLE 2	EXAMPLE 3 COAX #1 (ALPHA)	CANISTER COAX #2 (ALPHA)
RED	RED	RED	RED
BLUE	BLUE		
GREEN	GREEN		
ORANGE	YELLOW		
PURPLE			

FIBER JUMPERS TO RRHS
LOW-BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.

LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE

POWER CABLES TO RRHS
LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY.

LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE

RET MOTORS AT ANTENNAS
RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.

ANTENNA 1 MID BAND		ANTENNA 1 LOW BAND		ANTENNA 1 MID BAND		ANTENNA 1 LOW BAND		ANTENNA 1 MID BAND		ANTENNA 1 LOW BAND	
IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE

MICROWAVE RADIO LINKS
LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.
MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID'S.

FORWARD AZIMUTH OF 0-120 DEGREES		FORWARD AZIMUTH OF 120-240 DEGREES		FORWARD AZIMUTH OF 240-359 DEGREES	
PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
RED	RED	BLUE	BLUE	GREEN	GREEN
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
	RED	BLUE	BLUE		GREEN
	WHITE	WHITE	WHITE		WHITE

LOW BANDS (N71+N26) OPTIONAL - (N29)
ORANGE

AWS (N66+N70+H-BLOCK)
PURPLE

CBRS TECH (3 GHz)
YELLOW

NEGATIVE SLANT PORT ON ANT/RRH
WHITE

ALPHA SECTOR
RED

BETA SECTOR
BLUE

GAMMA SECTOR
GREEN

COLOR IDENTIFIER

2

NOT USED

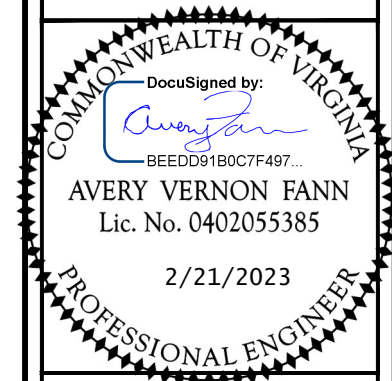
3



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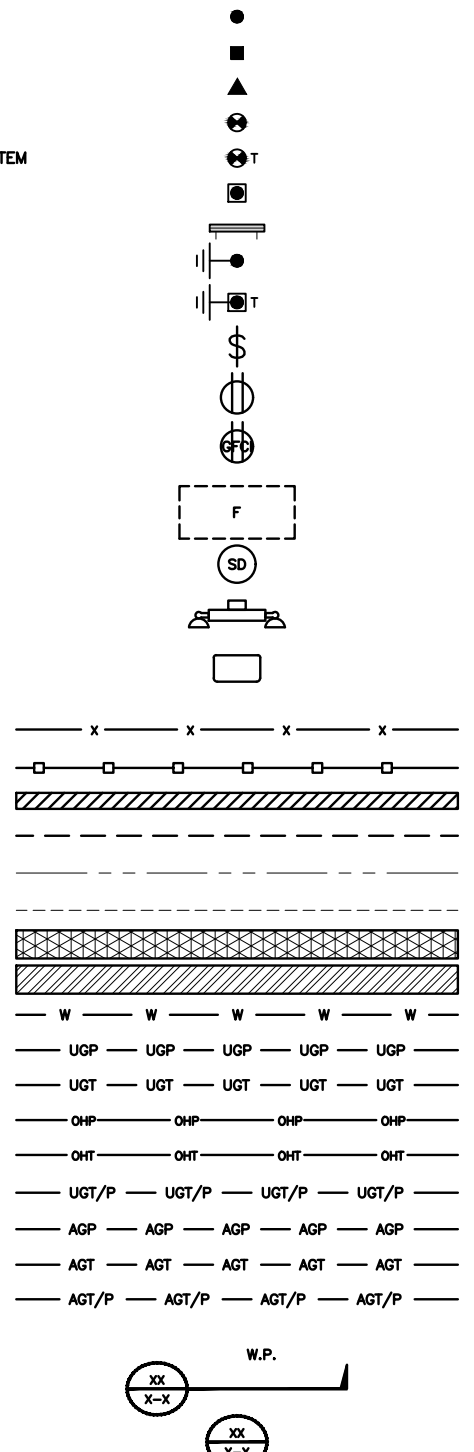
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SHEET TITLE
LEGEND AND ABBREVIATIONS

SHEET NUMBER
GN-1

- EXOTHERMIC CONNECTION ●
- MECHANICAL CONNECTION ■
- BUSS BAR INSULATOR ▲
- CHEMICAL ELECTROLYTIC GROUNDING SYSTEM ⊕
- TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM ⊕T
- EXOTHERMIC WITH INSPECTION SLEEVE ◻
- GROUNDING BAR ———
- GROUND ROD ———
- TEST GROUND ROD WITH INSPECTION SLEEVE ———T
- SINGLE POLE SWITCH ———
- DUPLEX RECEPTACLE ———
- DUPLEX GFCI RECEPTACLE ———
- FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8 ———
- SMOKE DETECTION (DC) ———
- EMERGENCY LIGHTING (DC) ———
- SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW LED-1-25A400/51K-SR4-120-PE-DBTXD ———
- CHAIN LINK FENCE ———
- WOOD/WROUGHT IRON FENCE ———
- WALL STRUCTURE ———
- LEASE AREA ———
- PROPERTY LINE (PL) ———
- SETBACKS ———
- ICE BRIDGE ———
- CABLE TRAY ———
- WATER LINE ———
- UNDERGROUND POWER ———
- UNDERGROUND TELCO ———
- OVERHEAD POWER ———
- OVERHEAD TELCO ———
- UNDERGROUND TELCO/POWER ———
- ABOVE GROUND POWER ———
- ABOVE GROUND TELCO ———
- ABOVE GROUND TELCO/POWER ———
- WORKPOINT ———
- SECTION REFERENCE ———
- DETAIL REFERENCE ———



LEGEND

- AB ANCHOR BOLT
- ABV ABOVE
- AC ALTERNATING CURRENT
- ADDL ADDITIONAL
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- AGL ABOVE GROUND LEVEL
- AIC AMPERAGE INTERRUPTION CAPACITY
- ALUM ALUMINUM
- ALT ALTERNATE
- ANT ANTENNA
- APPROX APPROXIMATE
- ARCH ARCHITECTURAL
- ATS AUTOMATIC TRANSFER SWITCH
- AWG AMERICAN WIRE GAUGE
- BATT BATTERY
- BLDG BUILDING
- BLK BLOCK
- BLKG BLOCKING
- BM BEAM
- BTC BARE TINNED COPPER CONDUCTOR
- BOF BOTTOM OF FOOTING
- CAB CABINET
- CANT CANTILEVERED
- CHG CHARGING
- CLG CEILING
- CLR CLEAR
- COL COLUMN
- COMM COMMON
- CONC CONCRETE
- CONSTR CONSTRUCTION
- DBL DOUBLE
- DC DIRECT CURRENT
- DEPT DEPARTMENT
- DF DOUGLAS FIR
- DIA DIAMETER
- DIAG DIAGONAL
- DIM DIMENSION
- DWG DRAWING
- DWL DOWEL
- EA EACH
- EC ELECTRICAL CONDUCTOR
- EL ELEVATION
- ELEC ELECTRICAL
- EMT ELECTRICAL METALLIC TUBING
- ENG ENGINEER
- EQ EQUAL
- EXP EXPANSION
- EXT EXTERIOR
- EW EACH WAY
- FAB FABRICATION
- FF FINISH FLOOR
- FG FINISH GRADE
- FIF FACILITY INTERFACE FRAME
- FIN FINISH(ED)
- FLR FLOOR
- FDN FOUNDATION
- FOC FACE OF CONCRETE
- FOM FACE OF MASONRY
- FOS FACE OF STUD
- FOW FACE OF WALL
- FS FINISH SURFACE
- FT FOOT
- FTG FOOTING
- GA GAUGE
- GEN GENERATOR
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- GLB GLUE LAMINATED BEAM
- GLV GALVANIZED
- GPS GLOBAL POSITIONING SYSTEM
- GND GROUND
- GSM GLOBAL SYSTEM FOR MOBILE
- HDG HOT DIPPED GALVANIZED
- HDR HEADER
- HGR HANGER
- HVAC HEAT/VENTILATION/AIR CONDITIONING
- HT HEIGHT
- IGR INTERIOR GROUND RING
- IN INCH
- INT INTERIOR
- LB(S) POUND(S)
- LF LINEAR FEET
- LTE LONG TERM EVOLUTION
- MAS MASONRY
- MAX MAXIMUM
- MB MACHINE BOLT
- MECH MECHANICAL
- MFR MANUFACTURER
- MGB MASTER GROUND BAR
- MIN MINIMUM
- MISC MISCELLANEOUS
- MTL METAL
- MTS MANUAL TRANSFER SWITCH
- MW MICROWAVE
- NEC NATIONAL ELECTRIC CODE
- NM NEWTON METERS
- NO. NUMBER
- # NUMBER
- NTS NOT TO SCALE
- OC ON-CENTER
- OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
- OPNG OPENING
- P/C PRECAST CONCRETE
- PCS PERSONAL COMMUNICATION SERVICES
- PCU PRIMARY CONTROL UNIT
- PRC PRIMARY RADIO CABINET
- PP POLARIZING PRESERVING
- PSF POUNDS PER SQUARE FOOT
- PSI POUNDS PER SQUARE INCH
- PT PRESSURE TREATED
- PWR POWER CABINET
- QTY QUANTITY
- RAD RADIUS
- RECT RECTIFIER
- REF REFERENCE
- REINF REINFORCEMENT
- REQ'D REQUIRED
- RET REMOTE ELECTRIC TILT
- RF RADIO FREQUENCY
- RMC RIGID METALLIC CONDUIT
- RRH REMOTE RADIO HEAD
- RRU REMOTE RADIO UNIT
- RWY RACEWAY
- SCH SCHEDULE
- SHT SHEET
- SIAD SMART INTEGRATED ACCESS DEVICE
- SIM SIMILAR
- SPEC SPECIFICATION
- SQ SQUARE
- SS STAINLESS STEEL
- STD STANDARD
- STL STEEL
- TEMP TEMPORARY
- THK THICKNESS
- TMA TOWER MOUNTED AMPLIFIER
- TN TOE NAIL
- TOA TOP OF ANTENNA
- TOC TOP OF CURB
- TOF TOP OF FOUNDATION
- TOP TOP OF PLATE (PARAPET)
- TOS TOP OF STEEL
- TOW TOP OF WALL
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
- TYP TYPICAL
- UG UNDERGROUND
- UL UNDERWRITERS LABORATORY
- UNO UNLESS NOTED OTHERWISE
- UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
- VIF VERIFIED IN FIELD
- W WIDE
- W/ WITH
- WD WOOD
- WP WEATHERPROOF
- WT WEIGHT

ABBREVIATIONS

SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
- "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER:DISH Wireless L.L.C.
TOWER OWNER:TOWER OWNER
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
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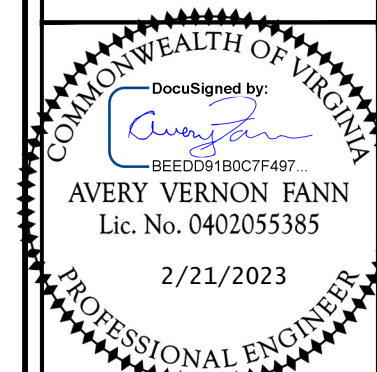
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A&E PROJECT NUMBER
KHBAL-76

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PROJECT INFORMATION
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SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 4000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
 #4 BARS AND SMALLER 40 ksi
 #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

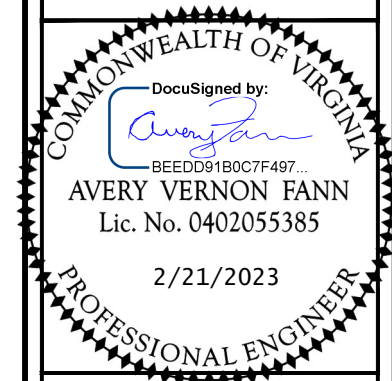
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PROJECT INFORMATION
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SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

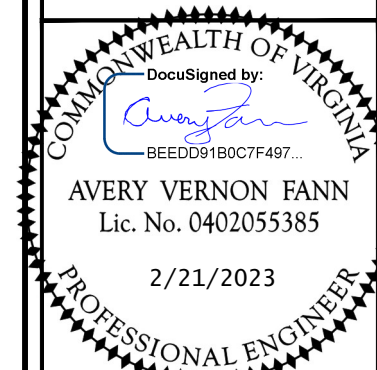
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SHEET NUMBER
GN-4

EXISTING CARRIER
GRATED EQUIPMENT
PLATFORM WITH CANOPY
(10'-6" X 29'-9")

EXISTING WOOD
FENCE (TYP.)

EXISTING CARRIER
EQUIPMENT CABINET

EXISTING VERIZON
MESA FIBER CABINET

EXISTING CARRIER
GENERATOR

EXISTING WATER
TANK LEG (TYP.)

EXISTING WATER
TANK ABOVE
(APPROXIMATE).
SEE LE-4 FOR
ANTENNA PLAN

EXISTING ICE
BRIDGE (TYP.)

EXISTING CARRIER
CONCRETE
EQUIPMENT PAD
(12'-0" X 9'-8")

EXISTING COMCAST
FIBER HANDHOLE

EXISTING CARRIER
EQUIPMENT
SHELTER
(12'-3"
x
32'-0")

EXISTING
VAULT

DISH WIRELESS, LLC.
FIBER ROUTE TO
EXISTING FIBER MMP

EXISTING CARRIER WOOD
FENCED EQUIPMENT
COMPOUND
(17'-0" x 29'-0")

REMOVE OVERGROWTH IN
COMPOUND AND ADD NEW
GRAVEL AS REQUIRED

EXISTING COMPOUND
FENCE TO BE REPAIRED
EXISTING CARRIER
EQUIPMENT TO BE
REMOVED

DISH WIRELESS, LLC.
POWER ROUTE TO
EXISTING VACANT METER
EXISTING VACANT
METER TO BE
UTILIZED FOR POWER

PROPOSED DISH WIRELESS,
LLC. 5'X7' EQUIPMENT
PLATFORM IN 10'X15'
LEASE AREA

EXISTING BUILDING

EXISTING SIDEWALK

EXISTING TREE (TYP.)

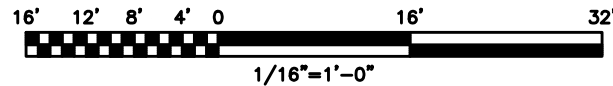
EXISTING WOOD
FENCE GATE (TYP.)

N 4TH ST

EXISTING GRAVEL
ACCESS DRIVE



EXISTING
BUILDING



dish
wireless.

5701 SOUTH
SANTA FE DRIVE
LITTLETON, CO 80120

Kimley»Horn

COA #0407 002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

**LEASE
EXHIBIT**

CARRIER
DISH Wireless L.L.C.

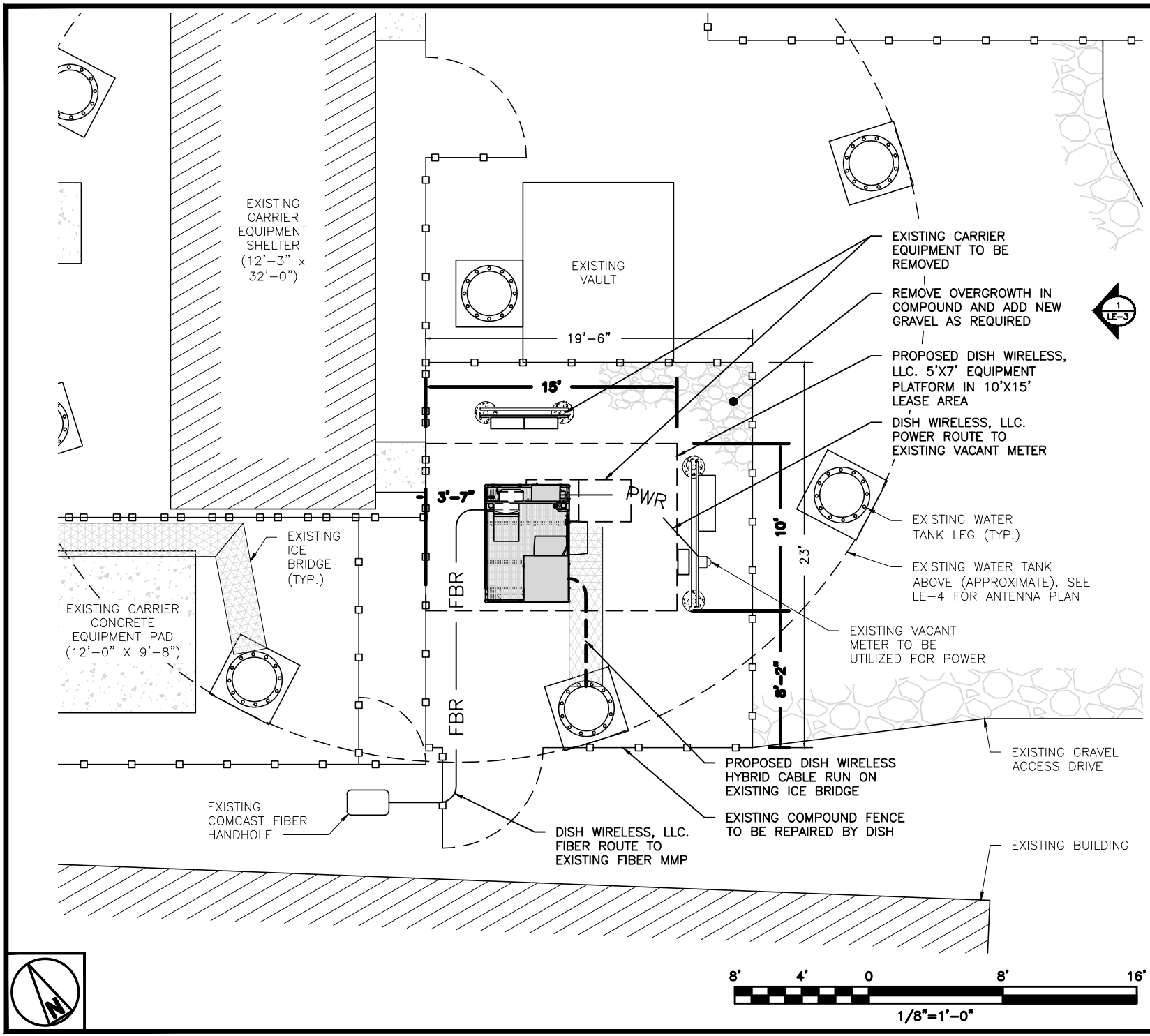
APPLICATION NUMBER
TBD

DISH WIRELESS, LLC.
PROJECT INFORMATION

DCWDC00816B
34 N 4TH ST
WARRENTON, VA 20186

SHEET TITLE
**OVERALL
SITE PLAN**

SHEET NUMBER
LE-1



dish
wireless.

5701 SOUTH
SANTA FE DRIVE
LITTLETON, CO 80120

Kimley»Horn

COA #0407 002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

**LEASE
EXHIBIT**

CARRIER
DISH Wireless L.L.C.

APPLICATION NUMBER
TBD

DISH WIRELESS, LLC.
PROJECT INFORMATION
DCWDC00816B
34 N 4TH ST
WARRENTON, VA 20186

SHEET TITLE
**ENLARGED
SITE PLAN**

SHEET NUMBER
LE-2

NOTE:
EXISTING AND PROPOSED
EQUIPMENT ELEVATIONS
TO BE VERIFIED

EXISTING AND PROPOSED
ANTENNAS. SEE LE-4
FOR ANTENNA PLAN

EXISTING WATER TANK

EXISTING PANEL ANTENNAS
RAD CENTER @ ±148'-0" AGL

EXISTING WATER TANK
TOP EL. @ ±139'-0" AGL

(3) PROPOSED DISH WIRELESS, LLC. ANTENNAS

RAD CENTER @ 138'-0" AGL
EXISTING WATER TANK

TOP EL. @ ±138'-0" AGL
EXISTING MICROWAVE DISHES

RAD CENTER @ ±123'-0" AGL
EXISTING PANEL ANTENNAS

RAD CENTER @ ±119'-0" AGL



5701 SOUTH
SANTA FE DRIVE
LITTLETON, CO 80120



COA #0407 002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

**LEASE
EXHIBIT**

CARRIER
DISH Wireless L.L.C.

APPLICATION NUMBER
TBD

DISH WIRELESS, LLC.
PROJECT INFORMATION

DCWDC00816B
34 N 4TH ST
WARRENTON, VA 20186

SHEET TITLE
TOWER ELEVATION

SHEET NUMBER

LE-3

PROPOSED DISH WIRELESS, LLC.
HYBRID CABLE ROUTED ON
EXISTING MOUNTING BRACKETS.
PAINT TO MATCH EXISTING
STRUCTURE

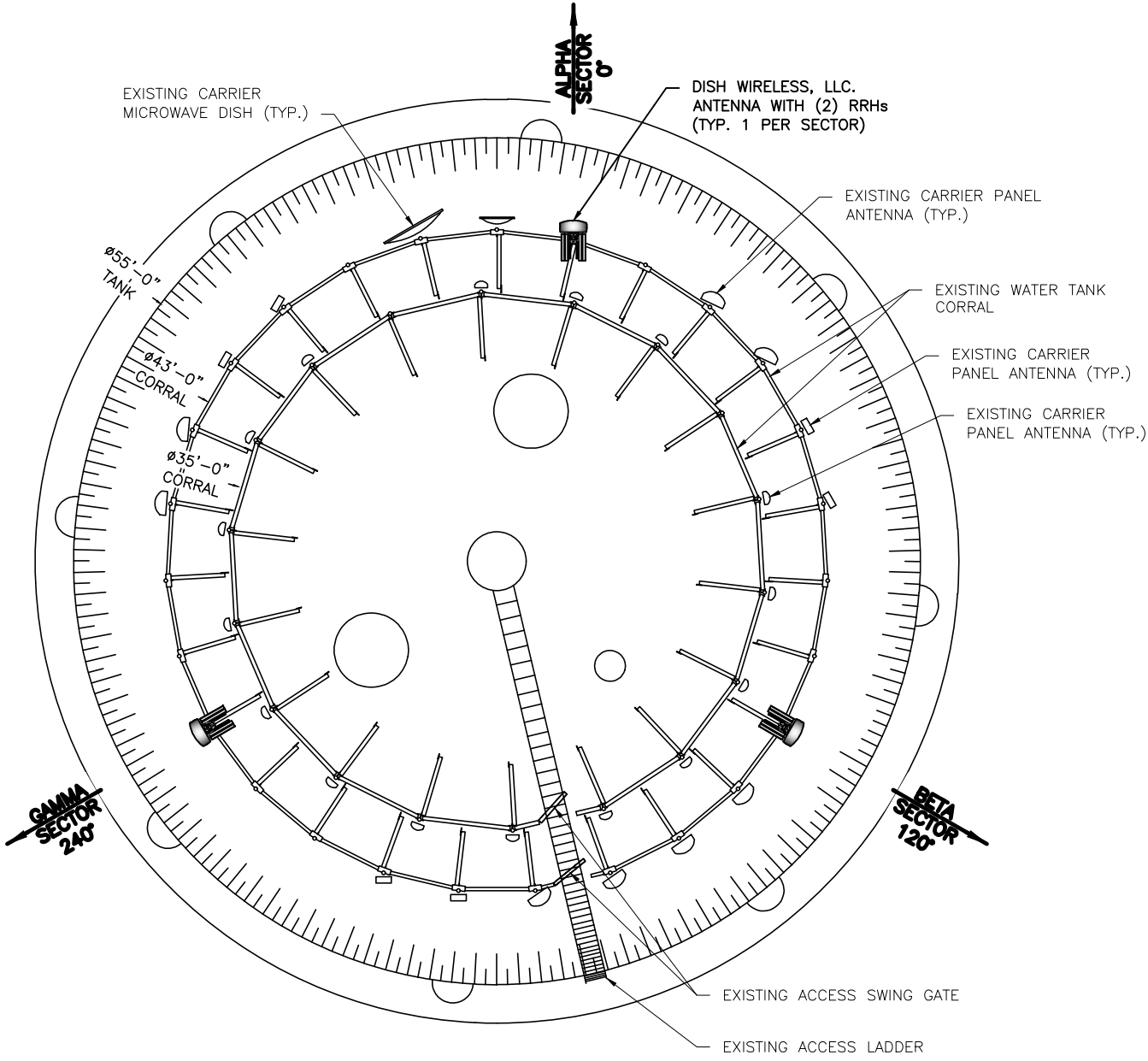
(2) PROPOSED LEG BANDS
PAINTED TO MATCH STRUCTURE

PROPOSED DISH WIRELESS,
LLC. GPS UNIT TO BE
MOUNTED ON PROPOSED
STANDOFF MOUNT BRACKET

EXISTING ICE BRIDGE TO BE
UTILIZED

PROPOSED DISH WIRELESS,
LLC. EQUIPMENT ON
PROPOSED STEEL PLATFORM

EXISTING GRADE
BOTTOM EL. @ 0'-0" AGL



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



COA #0407 002521
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

LEASE EXHIBIT

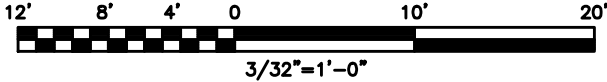
CARRIER
DISH Wireless L.L.C.

APPLICATION NUMBER
TBD

DISH WIRELESS, LLC.
PROJECT INFORMATION
DCWDC00816B
34 N 4TH ST
WARRENTON, VA 20186

SHEET TITLE
ANTENNA PLAN

SHEET NUMBER
LE-4



Rooftop Sector Solution for RRH Applications

RDIDC-3045-PF-48

The deployment of Remote Radio Head (RRH) architecture poses unique challenges to the mobile telecom industry.

Raycap's innovative RRH protection solutions mitigate the risk of damage due to lightning and provide high levels of availability and reliability to radio equipment.



Features

- Employs the Strikesorb® 30-V1-2CFV Surge Protective Device (SPD) specifically designed for the Remote Radio Head (RRH) installation environment and certified for use in DC applications and at low DC operating voltages (48V)
- The Strikesorb 30-V1-2CFV is a Class I SPD, certified by VDE per the IEC 61643-11 standard as suitable for installation in areas where direct lightning exposure is expected. Strikesorb 30-V1-2CFV is able to withstand direct lightning currents of up to 12.5kA (10/350) and induced surge currents of up to 60kA (8/20).
- Provides very low let through / clamping voltage - unique for a Class I product - as it does not employ spark gaps or other switching elements. Strikesorb offers unique protection levels to the RRH equipment as well as the base equipment
- For shared circuit protection architecture
- Configurable cable ports are designed to accommodate varying diameters of hybrid (combined power and fiber optic) or standard cables
- Fully recognized to the UL 1449 4th Edition Safety Standard
- Patent pending design

Benefits

- Offers unique maintenance-free protection against direct lightning currents
- Protects up to 3 Remote Radio Heads and connects up to 8 fiber pairs
- Utilizes a NEMA 4X rated enclosure, allowing for indoor or outdoor installation at the Towntop, Tower Base, and Rooftop Base



Strikesorb
30-V1-2CFV

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G02-02-091 210115

Electrical

Model Number	RDIDC-3045-PF-48
Nominal Operating Voltage	48 VDC
Nominal Discharge Current [I_n]	20 kA 8/20 μ s
Maximum Surge Current [I_{max}]	60 kA 8/20 μ s
Maximum Impulse (Lightning) Current per IEC 61643-11	12.5 kA 10/350 μ s
Maximum Continuous Operating Voltage [U_c]	75VDC
Response Time [t_d]	<1 ns
Voltage Protection Rating (VPR) per UL 1449 4th Edition	400V
Let-through Voltage @ 20kA (8/20)	<410V
Let-through Voltage @ 10kA (8/20)	<330V
Voltage Protection Level (VPL) per IEC 61643-11	<200V @ 12.5 kA 10/350 μ s
Fault Monitoring	Local status indicator - dry contact alarm
Circuit Configuration	Parallel; -48VDC supply-return, return-ground
Protection Class as per IEC 61643-1	Class I
Incoming Power/Fiber	Power: #10/8/6/4/2 AWG (6 mm ² - 33.6 mm ²) power trunk Fiber: LC/LC
Strikesorb Module Type	30-V1-2CFV

Mechanical

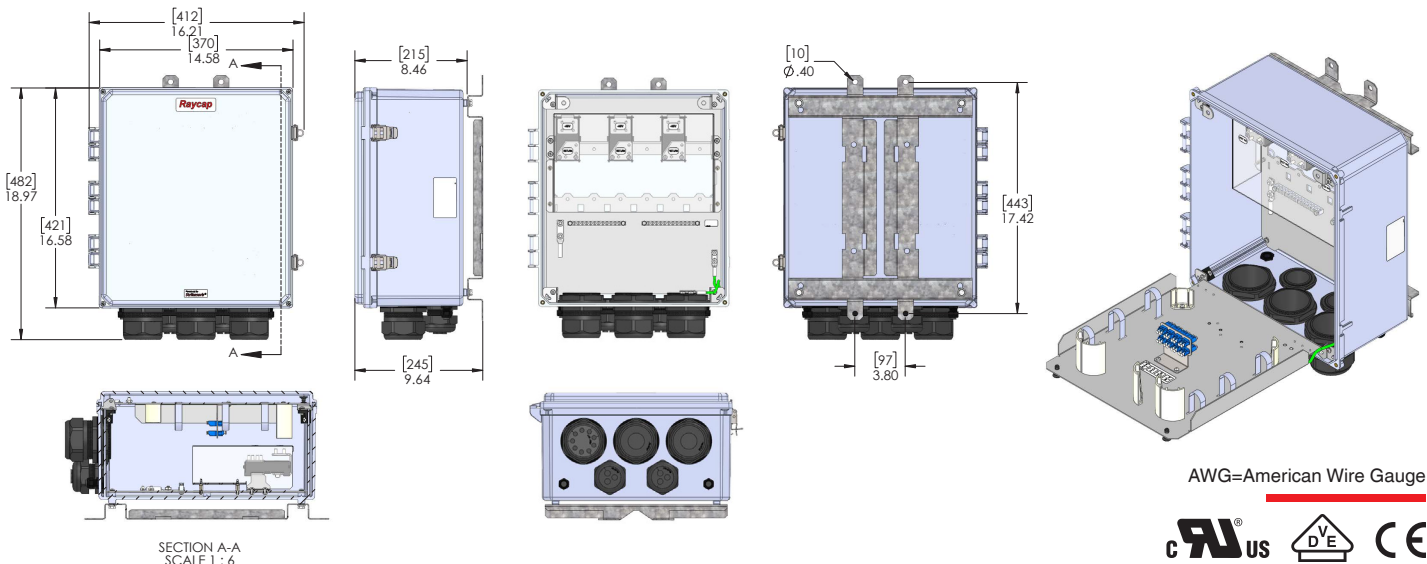
Suppression Connection Method	Compression lug, #14 - #2 AWG (2.1 mm ² - 33.6 mm ²) Copper; #12 - #2 AWG (3.3 mm ² - 33.6 mm ²) Aluminum
Fiber Connection Method	8 LC-LC Single mode
Environmental Rating	NEMA 4X
Operating Temperature	-40° C to +80° C
UV Resistant	Yes
Combined Wind Load	150 mph (sustained): 110.5 lbs (491.5N) 195 mph (gust): 186 lbs (827.4N)
Dimensions	14" x 16" x 8"
Estimated Weight	21 lbs

Standards Compliance & Certifications

Strikesorb modules are compliant to the following Surge Protective Device (SPD) Standards

Standards ANSI/UL 1449 4th Edition, IEEE C62.41, NEMA LS-1, IEC 61643-11 (Class I Protection), IEC 61643-12, EN 61643-11:2002 (including A11:2007)

Product Diagram



ARCHITECTURAL REVIEW BOARD
CERTIFICATE OF APPROPRIATENESS 23-49

July 27, 2023

MOTION TO APPROVE

I move to approve the application for **Certificate of Appropriateness 23-49** for the request to make alterations to the DISH telecommunications equipment on the existing Town of Warrenton water tank, to include: (3) proposed panel antennas, jumpers, (6) RRUs, (3) OVPs, (3) hybrid cables, and ground equipment to include: metal platform, PPC, equipment cabinet, power and telco conduit, fiber box, fiber NID and GPS unit and for overgrowth clearing and fence repair as needed, at **34 N. Fourth Street**, with the following conditions:

- 1) All necessary permits are acquired.
- 2) All equipment shall comply with all Zoning Ordinances.
- 3) The applicant shall not install mechanical equipment that radically changes the appearance of the historic structure.
- 4) Any proposed installation of cellular communications equipment will have the least possible visual impact on historic fabric and on the surrounding historic district and shall not be visible from the public street or right-of-way.
- 5) Design conduits to carry wires and cables through existing chases on the interior of the structure, as permitted by the local building code. Wires and cables may not be run on primary façades.
- 6) Do not introduce trees or other plantings with the intention of blocking the front façade from the public street or right-of-way. In this way, evergreen trees are not the best choice for the historic district. New plantings should be restrained so that views to and from the historic building are not inappropriately obstructed.

Motion to Approve By:

Seconded By:

For:

Against:

Abstained:



Community Development
Department

STAFF REPORT

Meeting Date:	July 27, 2023
Agenda Title:	COA 23-55 – 41 Beckham Street
Requested Action:	Review proposal for the request to install painted and hanging signage on the building’s exterior.
Department / Agency Lead:	Community Development
Staff Lead:	Casey Squyres

EXECUTIVE SUMMARY

The applicant is proposing to install three painted signs and one hanging sign and sign bracket at the building’s exterior.

- 1) The painted sign on the building’s front entrance will replace the existing “Wart Hog Brewing Company” painted signage. The new painted sign will read, “Silver Branch Brewing,” and measure approximately 3’ in height and 14’ in length.
- 2) The painted sign on the Lee Street side of 50 S. Third Street will match the main entrance.
- 3) The painted sign on the eave of the side elevation (on the Beckham Street side) will also match the other two painted signs.
- 4) The hanging sign and bracket will be affixed to the front corner on the Second Street elevation. The hanging sign will be approximately 4’ x 4’ in dimension. Note: Plans show two hanging signs – Applicant has confirmed only one hanging sign will be installed.

BACKGROUND

This resource is an addition to the building recorded in 156-0019-0284. It was constructed in c.1970 and, therefore, considered to have been associated with the neighboring main building after the period of significance. It is in excellent condition. As an addition to the resource mentioned in record 156-0019-0284, it is a contributing resource within the district. As a stand-alone resource, it falls outside the period of significance and does not contribute to the district.



DESIGN GUIDELINE CONSIDERATIONS

Historic District Guideline	Page No.	Analysis
D. FLAT & WALL SIGNS		
1. Wall signs should be scaled and sized according to the building to which they are proposed. They should not cover or obscure important architectural elements.	3.39	The applicant has demonstrated that the signage will not impact any architectural elements and will be consistent with the scale and size of the building.
3. As with the signboards, raised or painted letters are effective.	3.39	The applicant has demonstrated that the signage will consist of painted letters.
F. PROJECTING SIGNS		

Historic District Guideline	Page No.	Analysis
1. The bottom edge of the projecting sign should be eight (8) feet above the sidewalk.	3.41	The applicant has confirmed that the hanging sign will be 8' above the sidewalk.
2. Projecting signs should not be larger than six (6) square feet. The sign panel should have a minimum six-inch (6") clearance from the face of the building and extend to its outermost part less than four (4) feet. Projecting signs will be reviewed according to their scale and size and to the scale and size of the building to which they are proposed.	3.41	The applicant has confirmed the hanging sign dimensions will comply with the size requirements, measuring approximately 4' x 4'
3. Creative designs and shapes are always encouraged	3.41	The applicant has demonstrated that the proposed design is of a creative shape and design.
4. Limit the number of projecting signs to one per business	3.41	The applicant has confirmed that there will be only one hanging sign on the building.

STAFF RECOMMENDATION

Staff recommends approval of the request to install three painted and one hanging sign and bracket on the building's exterior, as described and depicted within the application, provided the following conditions are met:

- 1) All necessary permits are acquired.
- 2) All signage shall comply with all Zoning Ordinances.
- 3) Hanging signs and brackets should be attached in the least damaging means to the building's materials and other character-defining features. Try to reuse earlier holes for mounting rather than making new ones. When new holes are necessary, always try to fasten into the mortar instead of compromising the strength of a brick.

ATTACHMENTS

1. Attachment 1 - Photos
2. Attachment 2 - Draft Motion Sheet



ARCHITECTURAL REVIEW BOARD
CERTIFICATE OF APPROPRIATNESS

COA # _____
Zoning # _____
Assoc. Permit # _____

COMMUNITY DEVELOPMENT DEPARTMENT
18 Court Street, Lower Level
Warrenton, VA 20186

Phone: 540-347-2405
Email: planning@warrentonva.gov
Facsimile: 540-349-2414

The Architectural Review Board (ARB) meets every 4th Thursday at 7:00pm in Town Hall (18 Court Street). Applications requiring ARB are due by the 1st day of each month (or the first business day immediately following) prior to the meeting. Each applicant or a representative, who has the authority to commit the applicant to changes as recommended or required by the ARB are required to attend this meeting or the application will be deferred. Please read the Warrenton Historic District Guidelines for additional information Historic District requirements.

The following materials are required in addition to a complete, signed application (check if submitted):

- Photographs of the area of work.
Plans, drawings, product information sheets, and/or samples (Two hard/one digital copy).
Accompanying permit applications (if required; this application also serves as a zoning permit).

Project Owner

Address/Location: 41 Beckham St. Warrenton, VA 20186 GPIN: _____
Name: Silver Branch Warrenton Station Email: christian@silverbranchbrewing.com
Address: 41 Beckham St. Warrenton, VA 20186 Phone: 2028418646

Applicant (If different then above)

Name: Christian Layke Email: christian@silverbranchbrewing.com
Address: _____ Phone: 2028418646

Applicant's Representative (If different then above. Must have authority to commit the applicant to make changes that may be suggested or required by the ARB)

Name: _____ Email: _____
Address: _____ Phone: _____

Complete description of each modification or improvement

- 1) Replace painted sign on Lee Street side of 41 Beckham Street. The sign currently says WortHog Brewing Company.
2) Add painted sign to brick wall above window on Lee Street side of 50 S. 3rd Street.
3) Add painted sign to eaves of 56 Beckham Street 4) Add projecting sign on front corner of Second Street.

Is there an application relevant to this property pending or contemplated before another Town Board?
Yes [] No [x] If so, specify: _____

Christian Layke Digitally signed by Christian Layke
Date: 2023.07.05 14:12:03 -04'00'

Signature of Property Owner
Christian Layke
Name (Print or Type)

Signature of Applicant/Agent
Name (Print or Type)

ARCHITECTURAL REVIEW BOARD
CERTIFICATE OF APPROPRIATENESS 23-55

July 27, 2023

MOTION TO APPROVE

I move to approve the application for **Certificate of Appropriateness 23-55** for the request to install three painted signs and one hanging sign and bracket on the building's exterior, as described and depicted within the application, at **41 Beckham Street**, with the following conditions:

- 1) All necessary permits are acquired.
- 2) All signage shall comply with all Zoning Ordinances.
- 3) Hanging signs and brackets should be attached in the least damaging means to the building's materials and other character-defining features. Try to reuse earlier holes for mounting rather than making new ones. When new holes are necessary, always try to fasten into the mortar instead of compromising the strength of a brick.

Motion to Approve By:

Seconded By:

For:

Against:

Abstained:

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OWNER:
 BUSINESS NAME
 NAME
 EXAMPLE STREET NWE
 SUITE A
 CITY, ST 00000-000
 [T] 000-000-0000
 [W] WWW.ADDRESS.COM

ARCHITECT:
 /3877
 DAVID TRACZ, AIA, NCARB
 DAVID SHOVE BROWN, AIA, NCARB
 3333 K STREET NW, SUITE 60
 WASHINGTON DC 20013
 [T] 202.350.4244
 [W] WWW.ADDRESS.COM

GENERAL CONTRACTOR:
 BUSINESS NAME
 NAME
 EXAMPLE STREET NWE
 SUITE A
 CITY, ST 00000-000
 [T] 000-000-0000
 [W] WWW.ADDRESS.COM

SIGNAGE PERMIT

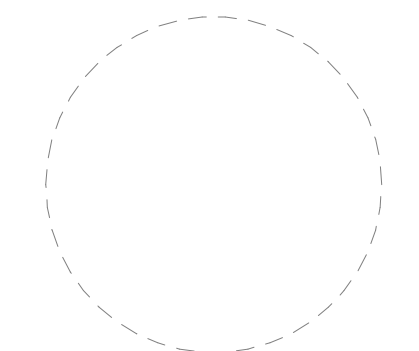
DRAWING DATA

PROJECT: **SILVER BRANCH BREWING**
 ADDRESS: **41 BECKHAM STREET
 WARRENTON, VA 20186**

SHEET SUBMISSION INDEX
 SCHEMATIC DESIGN 09 JUNE 2023

REV NO.	REVISION	DATE

SEAL & SIGNATURE:



NOT FOR CONSTRUCTION

SHEET TITLE: EXTERIOR SIGNAGE

PROJECT NO: 2023.23

SCALE: 1" = 10'-0"

A1001

E LEE STREET

S. SECOND STREET

S. THIRD STREET

BECKHAM STREET

EXISTING GRAVEL PARKING

A1002

FRONT PATIO ENTRANCE TO REMAIN

EX. 2 STORY BRICK & BLOCK BUILDING

REAR PATIO ENTRANCE TO REMAIN

EXISTING PATIO TO REMAIN

A1003

A1003

A1002

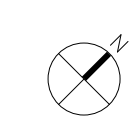
1 SITE PLAN - SIGNAGE
 1" = 10'-0"

BUILDING & PROPERTY INFORMATION

USE AND OCCUPANCY CLASS.
 BUILDING HEIGHT AND AREA
 MIXED USE OCCUPANCY
 CONSTRUCTION TYPE

AUTOMATIC SPRINKLER
 PORTABLE FIRE EXTINGUISHERS

LOT AREA
 BUILDING AREA



SN-101 HANGING SIGN
MOUNTING HARDWARE / METHOD



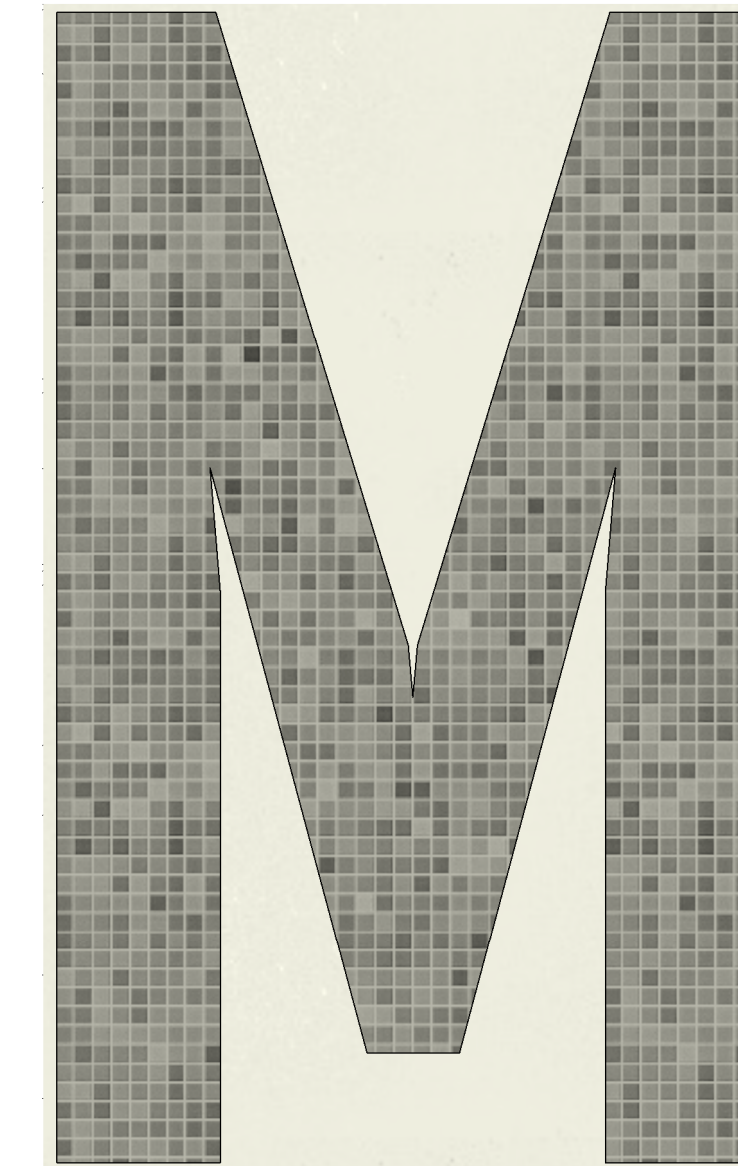
SN-102 BLADE SIGN
MOUNTING HARDWARE / METHOD



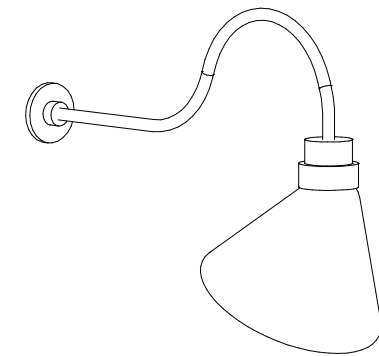
SN-103 PAINTED SIGN

SILVER BRANCH
BREWING

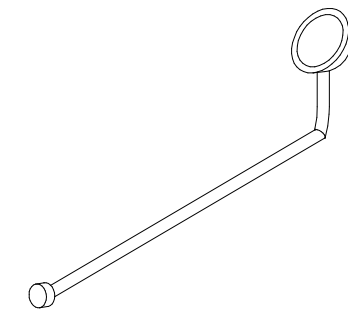
MOSAIC SIGNAGE



GOOSENECK LIGHT FIXTURE



SIGNAGE LIGHT FIXTURE



SN-104 MOSAIC TILE SIGN

MOSAIC PIZZA BISTRO



3333 K Street NW, Suite 60
WASHINGTON, DC 20007
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[F] 202.350.4245
[W] 3877.DESIGN

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OWNER:
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NAME
EXAMPLE STREET NWE
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[W] WWW.ADDRESS.COM

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SIGNAGE PERMIT

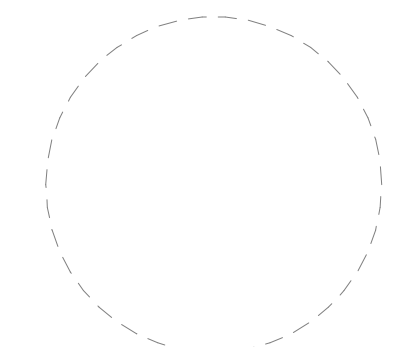
DRAWING DATA

PROJECT: **SILVER BRANCH BREWING**
ADDRESS: **41 BECKHAM STREET
WARRENTON, VA 20186**

SHEET SUBMISSION INDEX
SCHEMATIC DESIGN 09 JUNE 2023

REV NO.	REVISION	DATE

SEAL & SIGNATURE:



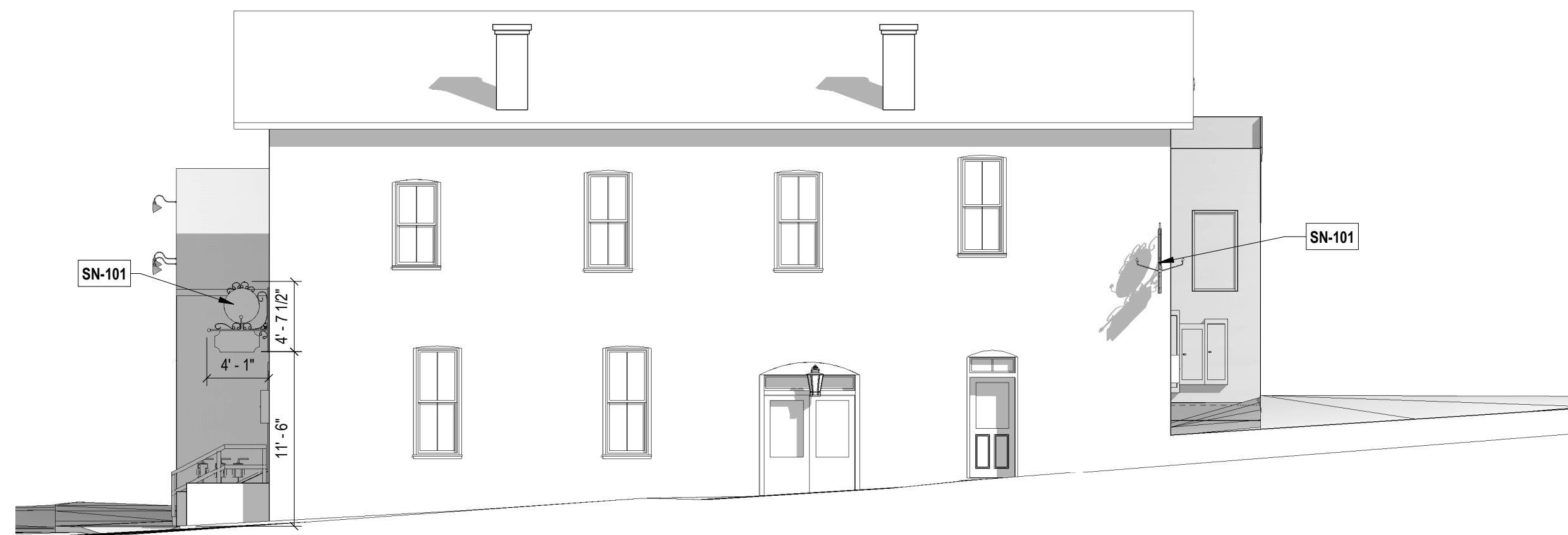
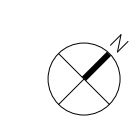
NOT FOR CONSTRUCTION

SHEET TITLE: EXTERIOR SIGNAGE

PROJECT NO: 2023.23

SCALE: 1/8" = 1'-0"

A1002



2 Elevation 5 - a
1/8" = 1'-0"



1 EXTERIOR ELEVATION - A Copy 1
1/8" = 1'-0"

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 WASHINGTON, DC 20007
 [T] 202.350.4244
 [F] 202.350.4245
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 DAVID SHOVE BROWN, AIA, NCARB
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 WASHINGTON DC 20013
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 [W] WWW.ADDRESS.COM

GENERAL CONTRACTOR:
 BUSINESS NAME
 NAME
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 CITY, ST 00000-000
 [T] 000-000-0000
 [W] WWW.ADDRESS.COM

SIGNAGE PERMIT

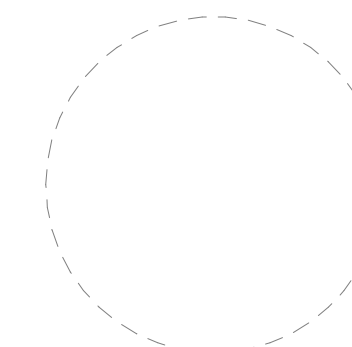
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PROJECT: **SILVER BRANCH BREWING**
 ADDRESS: **41 BECKHAM STREET
 WARRENTON, VA 20186**

SHEET SUBMISSION INDEX
 SCHEMATIC DESIGN 09 JUNE 2023

REV. NO.	REVISION	DATE

SEAL & SIGNATURE:



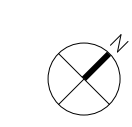
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SHEET TITLE: EXTERIOR SIGNAGE

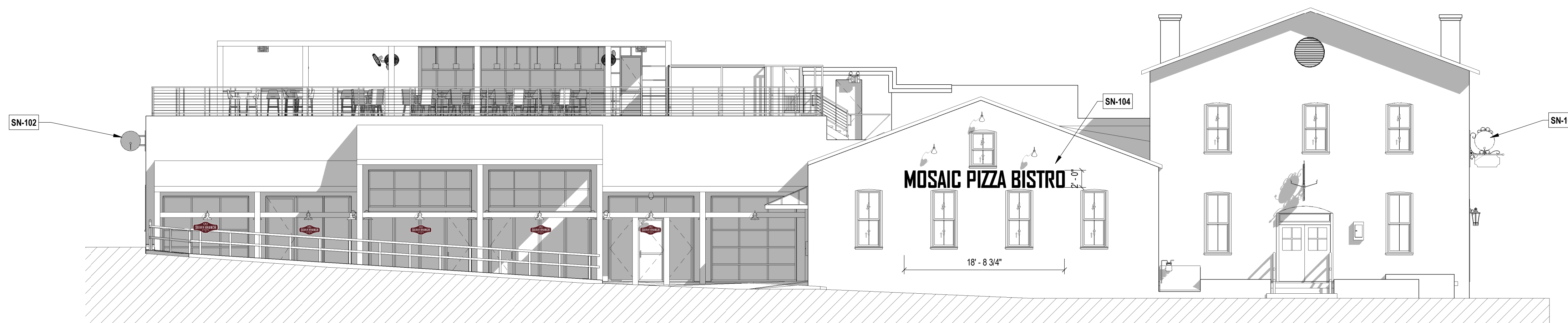
PROJECT NO: 2023.23

SCALE: 1/8" = 1'-0"

A1003



2 Elevation 2 - a
 1/8" = 1'-0"

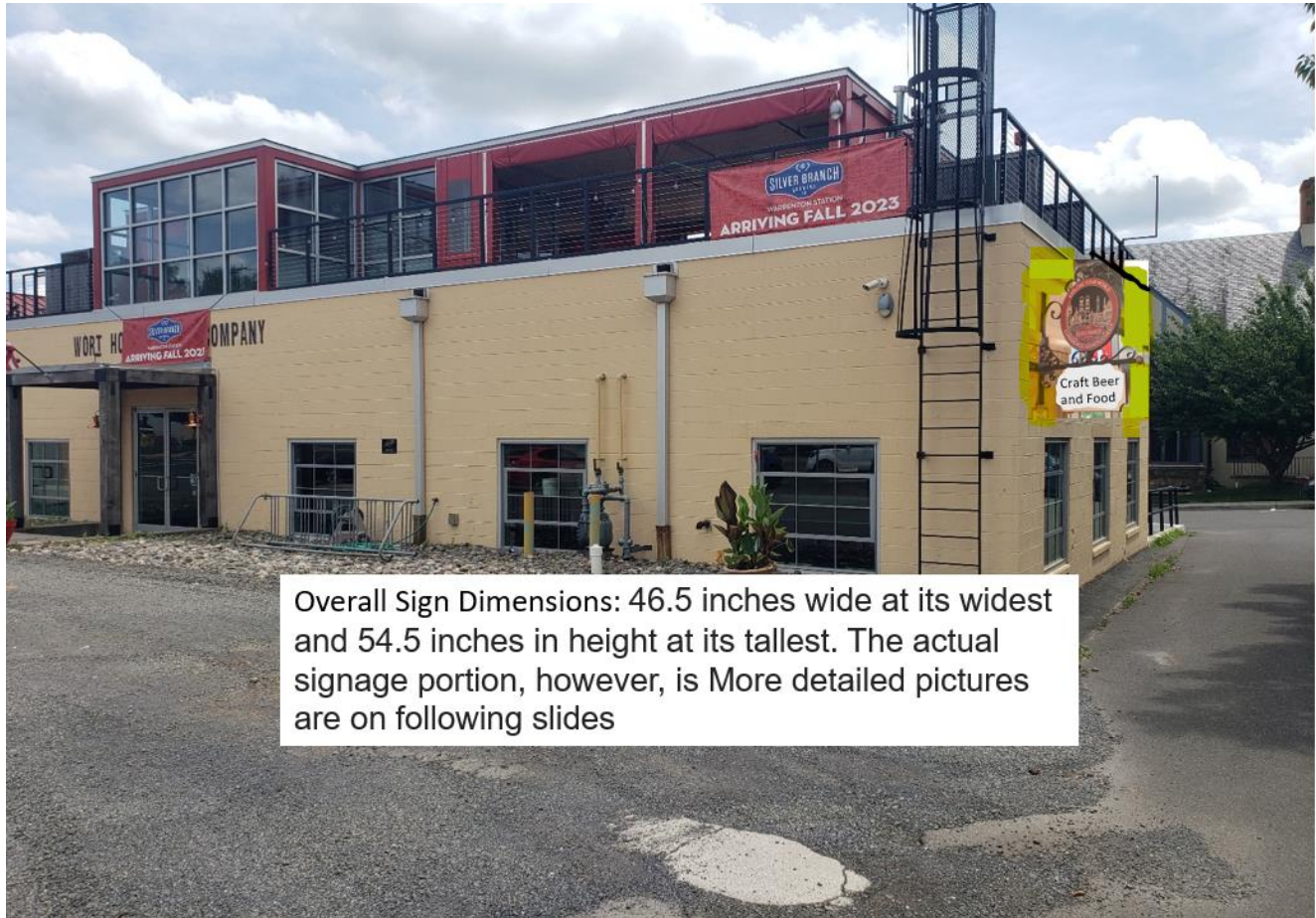


1 Elevation 4 - b Copy 1
 1/8" = 1'-0"

Vicinity Map – Street View



Photos:





Here you can see the detail of the metalwork. The sign at Warreton Station would say something more along the lines of House Crafted Beer & Food.

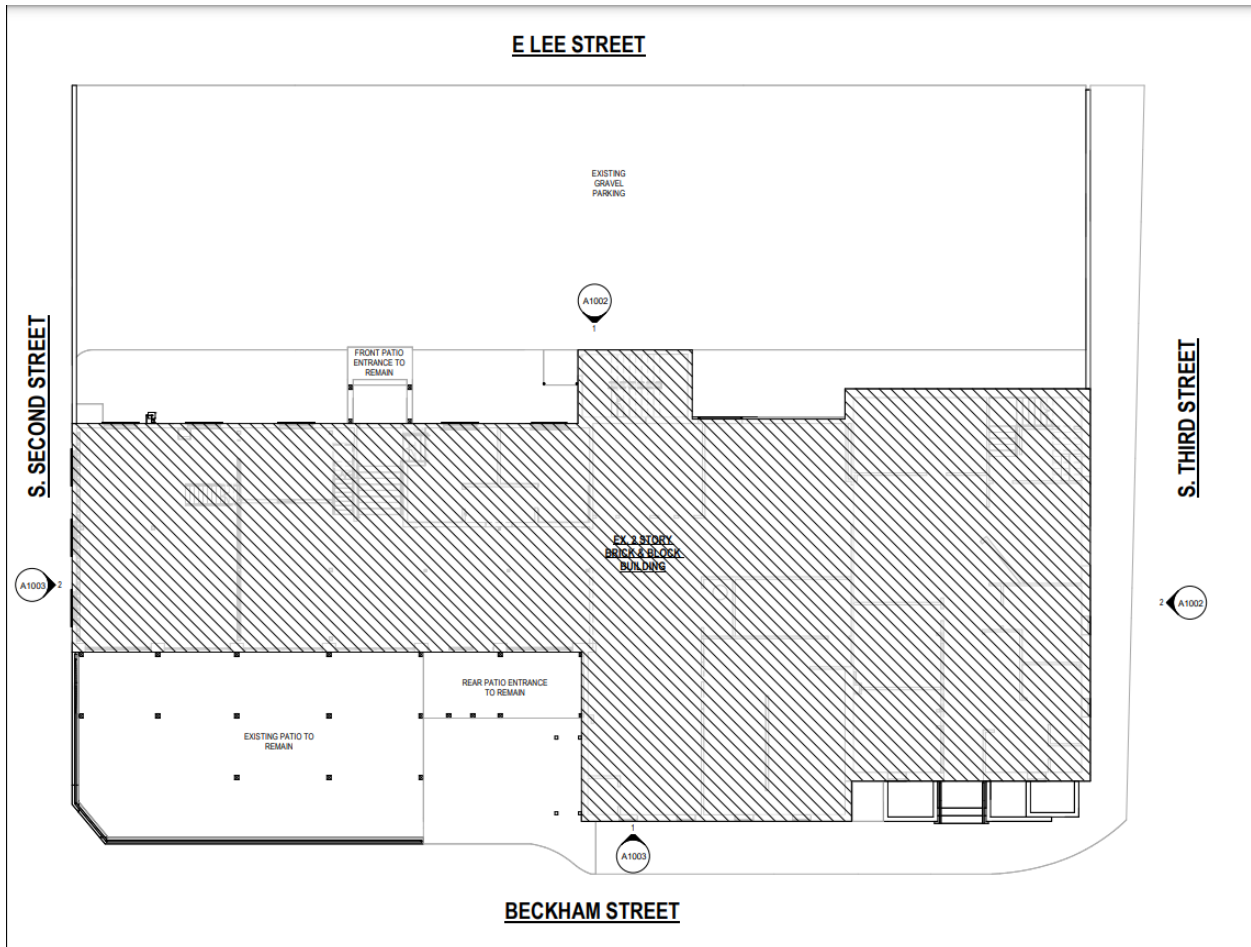







Approximate dimensions: 14 feet x 3 feet

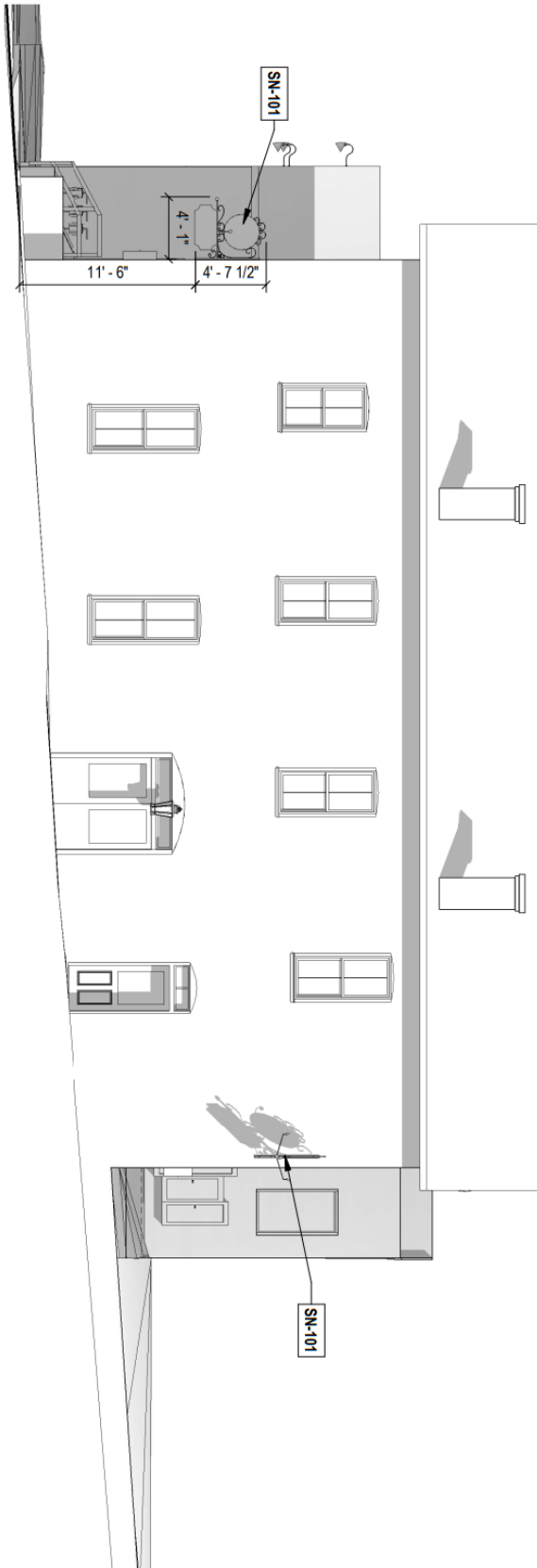




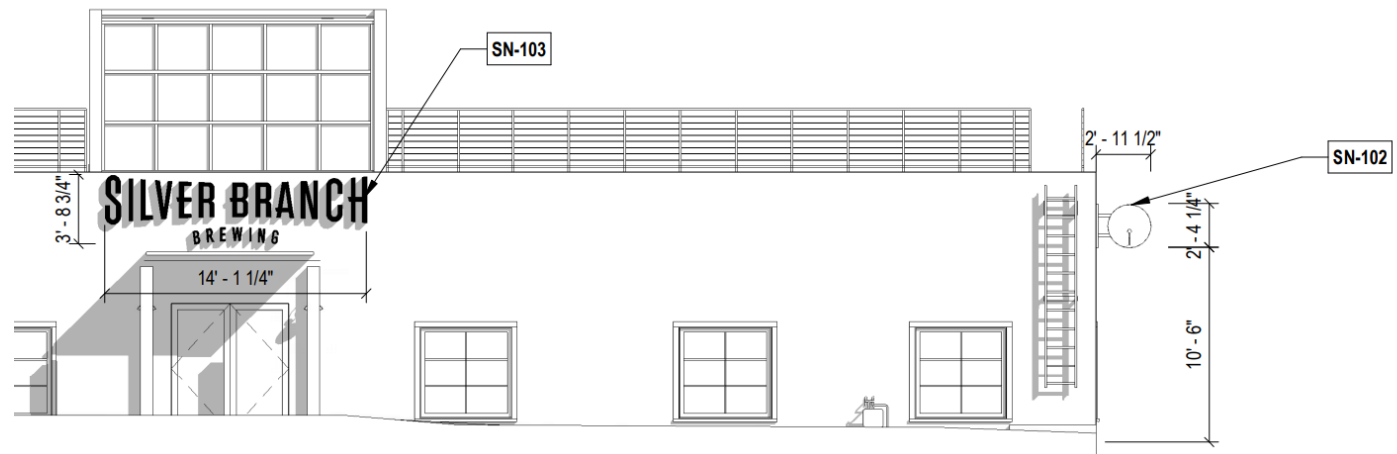
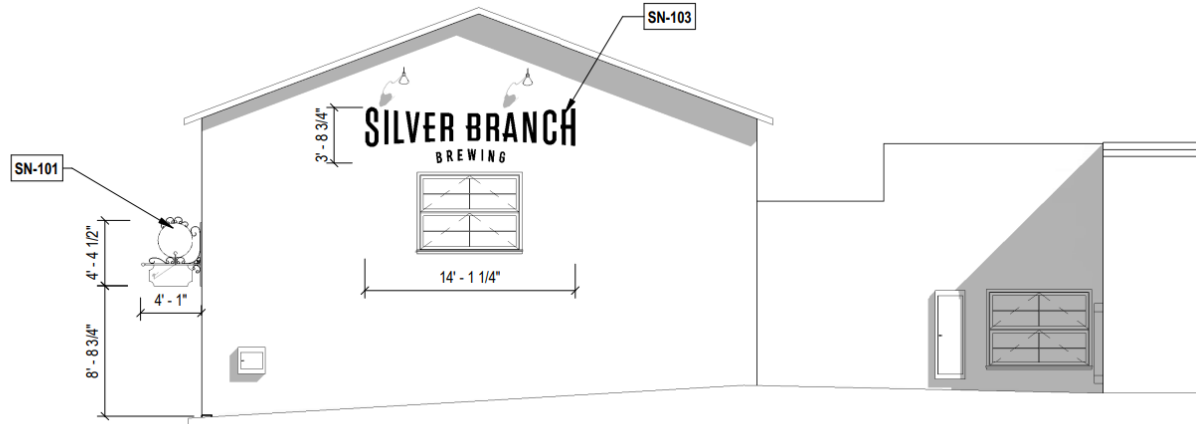
Plans:

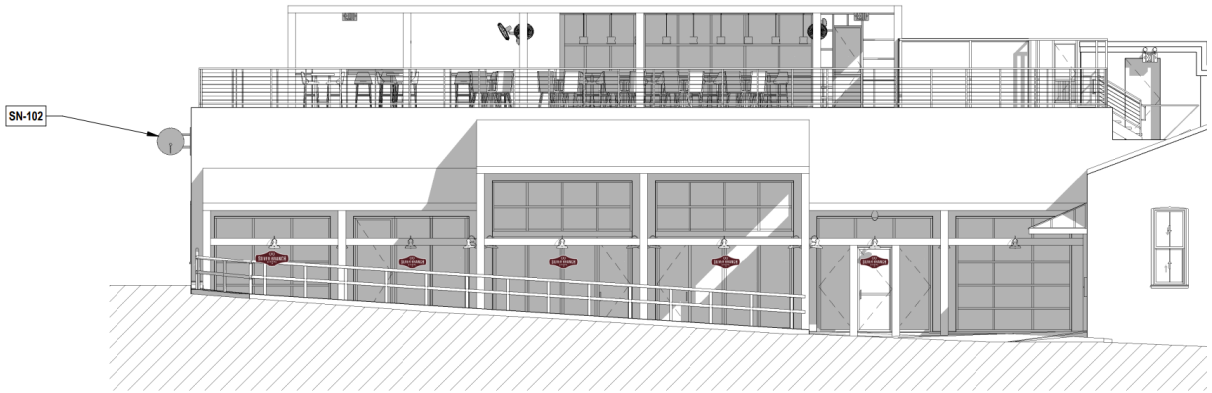
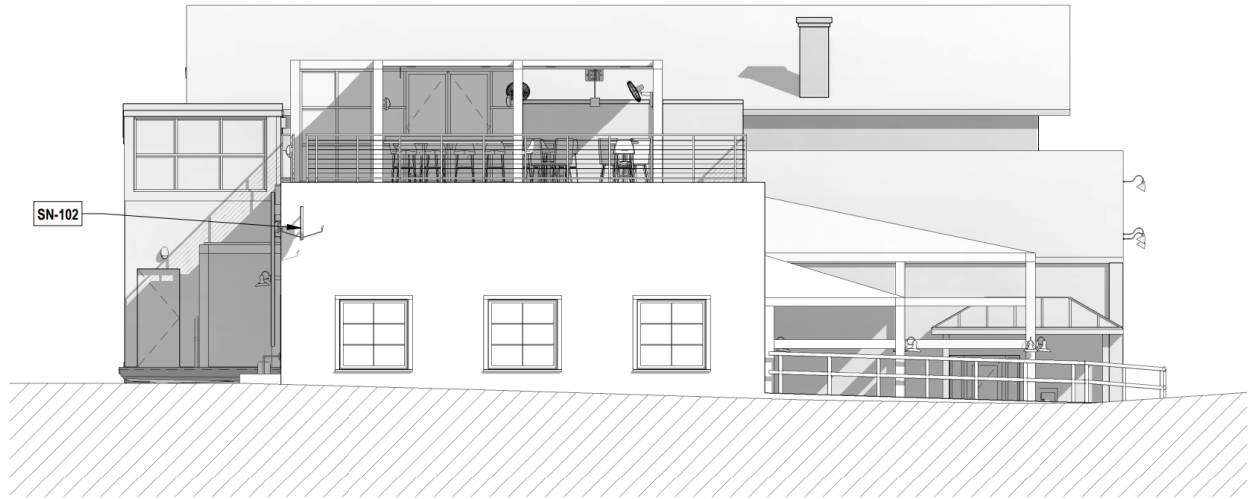


<p>SN-101 HANGING SIGN MOUNTING HARDWARE / METHOD</p>	<p>SN-102 BLADE SIGN MOUNTING HARDWARE / METHOD</p>	<p>SN-103 PAINTED SIGN</p>	<p>MOSAIC SIGNAGE</p>
	 <p>SILVER BRANCH BREWING CO.</p> <p>GOOSENECK LIGHT FIXTURE</p>  <p>SIGNAGE LIGHT FIXTURE</p> 	<p>SILVER BRANCH BREWING</p> <p>SN-104 MOSAIC TILE SIGN</p> <p>MOSAIC PIZZA BISTRO</p>	

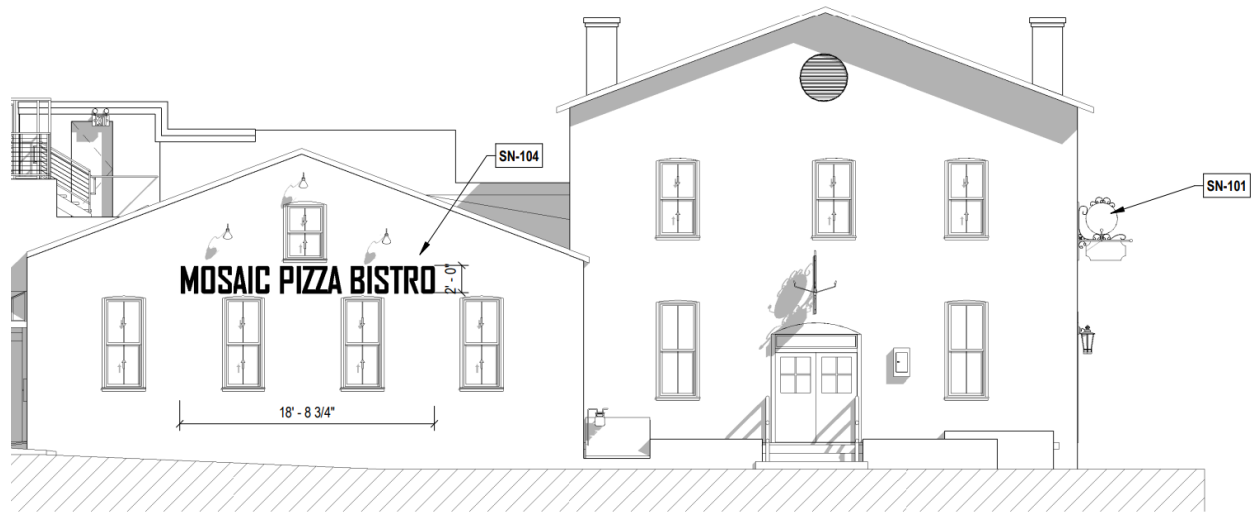


2 Elevation 5 - a
1/8" = 1'-0"





1 Elevation 4 - b Copy 1
1/8" = 1'-0"





1) Replace painted sign on Lee Street side of 41 Beckham Street.



2) Add painted sign to stucco brick wall above window on Lee Street side of 50 S. 3rd Street.



3) Add painted sign to eaves of 56 Beckham Street



Projecting sign on the corner of 2nd Street



Overall Sign Dimensions: 46.5 inches wide at its widest and 54.5 inches in height at its tallest. The actual signage portion, however, is More detailed pictures are on following slides



Here you can see the detail of the metalwork. The sign at Warreton Station would say something more along the lines of House Crafted Beer & Food.



Approximate dimensions: 14 feet x 3 feet



Approximate dimensions: 14 feet x 3 feet





Community Development
Department

STAFF REPORT

Meeting Date:	July 27, 2023
Agenda Title:	Work Session – 226 E. Lee Street
Requested Action:	Work session review of proposal for existing barn-to-ADU conversion.
Department / Agency Lead:	Community Development
Staff Lead:	Casey Squyres

EXECUTIVE SUMMARY

The applicant is proposing to convert the existing frame barn in the rear yard to a new ADU at 226 E. Lee Street.

- 1) The original building form will be retained and converted into a new ADU.
- 2) The existing shed-roof overhang addition will be removed and converted into a new shed-roof style addition with a lower roof attachment.
- 3) A shed-roof addition will be constructed on the opposite side of the main form of the existing building and will include a small side porch.
- 4) The total size of the existing main house on the parcel is 4746 sq. ft.
- 5) The total size of the existing barn on the parcel is 458 sq. ft.

BACKGROUND

This house was constructed in c.1900 and is in good condition. This is a good example of a Federal style house within the district and it represents a early twentieth-century building within the residential areas. The building retains integrity of location, design, setting, feeling, and association. This resource falls within the district's period of significance and contributes to the residential character of the district. Although the building does not possess sufficient architectural or historical significance to qualify for individual listing in the National Register, it is a contributing resource to the Warrenton Historic District under Criterion C for architecture.

Located behind the house is the ca. 1900 board and batten garage/shed. It has a front gabled roof with metal standing seam. Much of the resource is obscured by vegetation and not visible from the street.



DESIGN GUIDELINE CONSIDERATIONS

Historic District Guideline	Page No.	Analysis
7. NEW CONSTRUCTION A. Context		

Historic District Guideline	Page No.	Analysis
The Architectural Review Board will not specify a particular architectural style or design for new construction projects. The context of new construction or infill is more important than the decorative details applied, though detailing is important.	3.63	N/A
New construction will be evaluated based on the project's relationship to its surroundings (context) and to the details of its site (materials, cornices, trim, porches, landscaping, rhythm).	3.63	N/A
A1. Setback		
1. Relate the setback of any new construction and additions to the setback of the existing historic buildings in the immediate surroundings of the proposed new construction. Generally speaking, setback should be within 10% of adjacent setbacks.	3.64	Applicant states that all new construction and additions will meet proper setbacks.
A2. Spacing		
1. Space new construction according to the historic precedence in the immediate surroundings of the proposed new construction. This includes sites adjacent to as well as across the street from the proposed new construction.	3.65	Applicant intends to appropriately space all new construction to comply with the general setting and historic precedence of immediately surrounding houses and buildings.
A4. Massing		
2. Use forms for new construction that relate to the forms of the majority of surrounding buildings. For instance, if the form of adjacent buildings has a variety of projecting bays, dormers, etc., employ some of these elements in the new building.	3.67	Applicant intends to appropriately space all new construction to comply with the general setting and historic precedence of immediately surrounding houses and buildings.
A5. Height and Width		
1. The height and width of a new building must be compatible with historic buildings within a 360-degree range of visibility of the new building.	3.68	The applicant states height and width of the new construction will be compatible with the historic buildings within a 360-degree range of visibility.

Historic District Guideline	Page No.	Analysis
2. The height of a proposed building should be no taller than the tallest historic building on the block within a 360-degree range of visibility of the same type (e.g. single family to single family, multifamily to multi-family). The height of the historic structure should be calculated from the original historic ridge line (not any later additions that may be taller).	3.68	The applicant states height and width of the new construction will be compatible with the historic buildings within a 360-degree range of visibility.
3. Design new buildings to respect the existing width of original structures in the district. The space should be no more than ten percent of the average spacing of other historic buildings within the subject block. Larger apartment buildings or newer dwellings that do not contribute to the existing historic character should not be included within this calculation.		The applicant states height and width of the new construction will be compatible with the historic buildings within a 360-degree range of visibility.
A6. Scale		
1. Create human scale by including functional elements typical to the historic context, such as porches and porticoes.	3.69	Applicant has provided detailed plans and drawings for appropriate scale and massing of new construction.
B. NEW BUILDING		
1. New construction shall respect the established architectural character of the historic district.	3.70	Applicant has demonstrated that all new construction will respect the established character of the historic district.

Historic District Guideline	Page No.	Analysis
<p>2. The new building should be recognized as a product of its period of construction, design, materials and craftsmanship and consistent with the architecture of the Historic District. Avoid an exact imitation of a historic style that would blur the distinction between old and new buildings and make it more difficult to understand the architectural evolution of the district. In this way, an interpretation of a historic style that is authentic to the district will be considered if it is subtly distinguishable as being new. Allow for the contemporary design of new buildings, when such design is compatible with the size, scale, color, material, and character of the neighborhood, or environment.</p>	<p>3.70</p>	<p>Applicant has demonstrated that all new construction will respect the established character of the historic district. The materials and style/design proposed appropriately avoid exact imitation of the historic main house.</p>
<p>4. RHYTHM: Incorporate traditional façade rhythm and articulation techniques in a new design. Design a new building to replicate the rhythm of fenestration patterning found in the historic district. Arrange windows to reflect the traditional rhythm and general alignment of others in the area. Incorporate windows, doors, and other openings at a consistent ratio to those found on nearby historic buildings. Use durable window materials. Appropriate window materials include metal, wood, and various composites, as deemed appropriate by the preservation industry standards and the Architectural Review Board. Inappropriate window materials include aluminum and vinyl with plastic snap-in muntins. Use detailing to articulate a façade including window and door framing, sills, water tables and belt courses, canopies, moldings, cornices, columns, and pilasters</p>	<p>3.70</p>	<p>Applicant has provided detailed plans and drawings that demonstrate the fenestration patterns of the new construction and its relationship to the main house. The materials and style/design proposed appropriately avoid exact imitation of the historic main house.</p>

Historic District Guideline	Page No.	Analysis
<p>5. MATERIALS: Use building materials that appear similar in scale, color, texture, and finish to those seen historically in the context of the district. Use materials that are proven to be durable in the local climate. Use materials that will maintain an intended finish over time or acquire a patina. Use high-quality, durable, materials. Use new siding that is similar to the lap exposure, texture, and finish of traditional wood siding. Use trim boards that show depth and typify high-quality traditional construction.</p>	3.70	<p>The materials and style/design proposed appropriately avoid exact imitation of the historic main house. The materials to be utilized will be high-quality and durable in nature.</p>
<p>6. DOORS AND WINDOWS: Respect the size, proportion, spacing and rhythm of door and window openings on all stories of contributing buildings in the subject block or neighborhood when designing and constructing new commercial or residential buildings. Avoid horizontal strip windows or square openings and doors wider than double leaf.</p>	3.71	<p>Applicant has provided detailed plans and drawings that demonstrate the fenestration patterns of the new construction and its relationship to the main house.</p>
<p>7. STYLE: Style cannot be guided inasmuch as they emerge with good design by architects, art, implementation by builders, lifestyles, function, fashion, the economy and industrial evolution. Contemporary expression with respect of historic precedence, context, significance and architectural heritage is encouraged.</p>	3.71	<p>Applicant has demonstrated that all new construction will respect the established character of the historic district. The materials and style/design proposed appropriately avoid exact imitation of the historic main house.</p>
<p>8. OUTBUILDINGS: Outbuildings shall remain secondary to main buildings</p>	3.71	<p>Applicant has demonstrated through detailed drawings and plans that all new outbuilding construction will remain secondary to the main house.</p>
<p>C. ADDITIONS TO EXISTING BUILDINGS</p>		

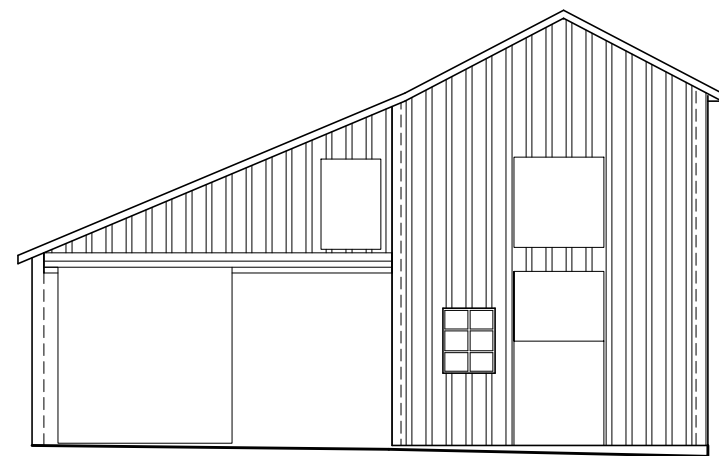
Historic District Guideline	Page No.	Analysis
1. Recognize all buildings as products of their own time; design the new addition so that it can be distinguished from the original, yet be compatible with the massing, size, scale and architectural features.	3.72	Applicant has demonstrated that all new construction will respect the established character of the historic district. The materials and style/design proposed appropriately avoid exact imitation of the historic main house.
2. Additions will cause the least possible diminution or loss of the historic character of the existing building including its materials, craftsmanship, design, location and setting.	3.72	Applicant has demonstrated that there will be no loss of historic fabric or integrity as a result of the new construction.
3. Locate additions that increase the interior footprint as inconspicuously as possible by setting them back from the front and side of the building.	3.72	Applicant has confirmed that the new construction will not increase or impact the interior footprint of the main house.
4. Additions should be clearly subordinate to the existing building in overall size including height, width, depth and scale.	3.72	Applicant has demonstrated through detailed drawings and plans that all new outbuilding construction will remain secondary to the main house.
7. Design and construct additions in such a manner that if removed in the future, the essential form, character and integrity of the historic property remains intact. For example, a small connector passage or hyphen to join a side or rear addition to the original building is less invasive and destroys less fabric than a full elevation connection.	3.72	Applicant has demonstrated that there will be minimal loss of historic fabric or integrity as a result of the new construction.
8. The style of the addition should not replicate the original but might respectfully, modestly reflect design elements.	3.72	Applicant has demonstrated that all new construction will respect the established character of the historic district. The materials and style/design proposed appropriately avoid exact imitation of the historic main house.
10. Respect the size, proportion, spacing and rhythm of existing door and window openings on the existing building. Respect the spatial relationship between the wall surface and window opening of the existing building	3.72	Applicant has provided detailed plans and drawings that demonstrate the fenestration patterns of the new construction and its relationship to the main house.

STAFF RECOMMENDATION

N/A - Work Session

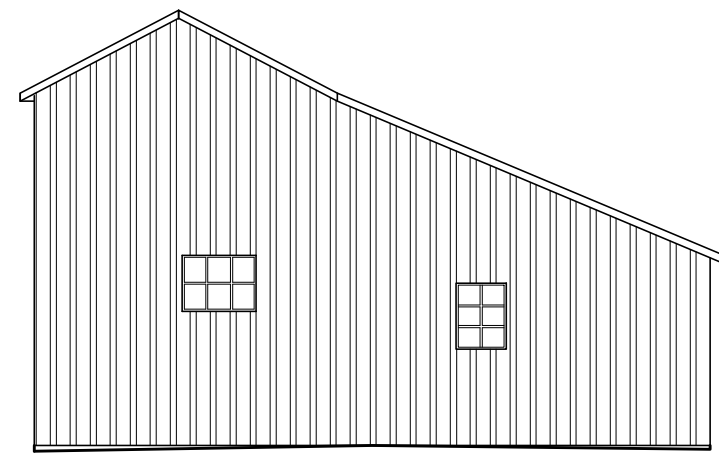
ATTACHMENTS

1. Attachment 1 - Photos and Plans



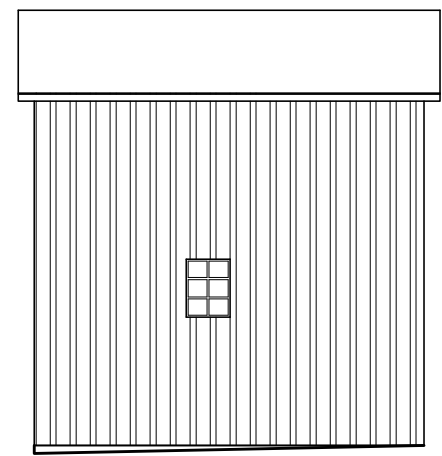
FRONT ELEVATION

SCALE: 1/8" = 1'-0"



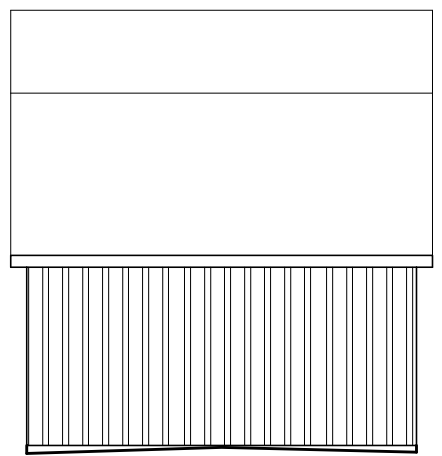
BACK ELEVATION

SCALE: 1/8" = 1'-0"



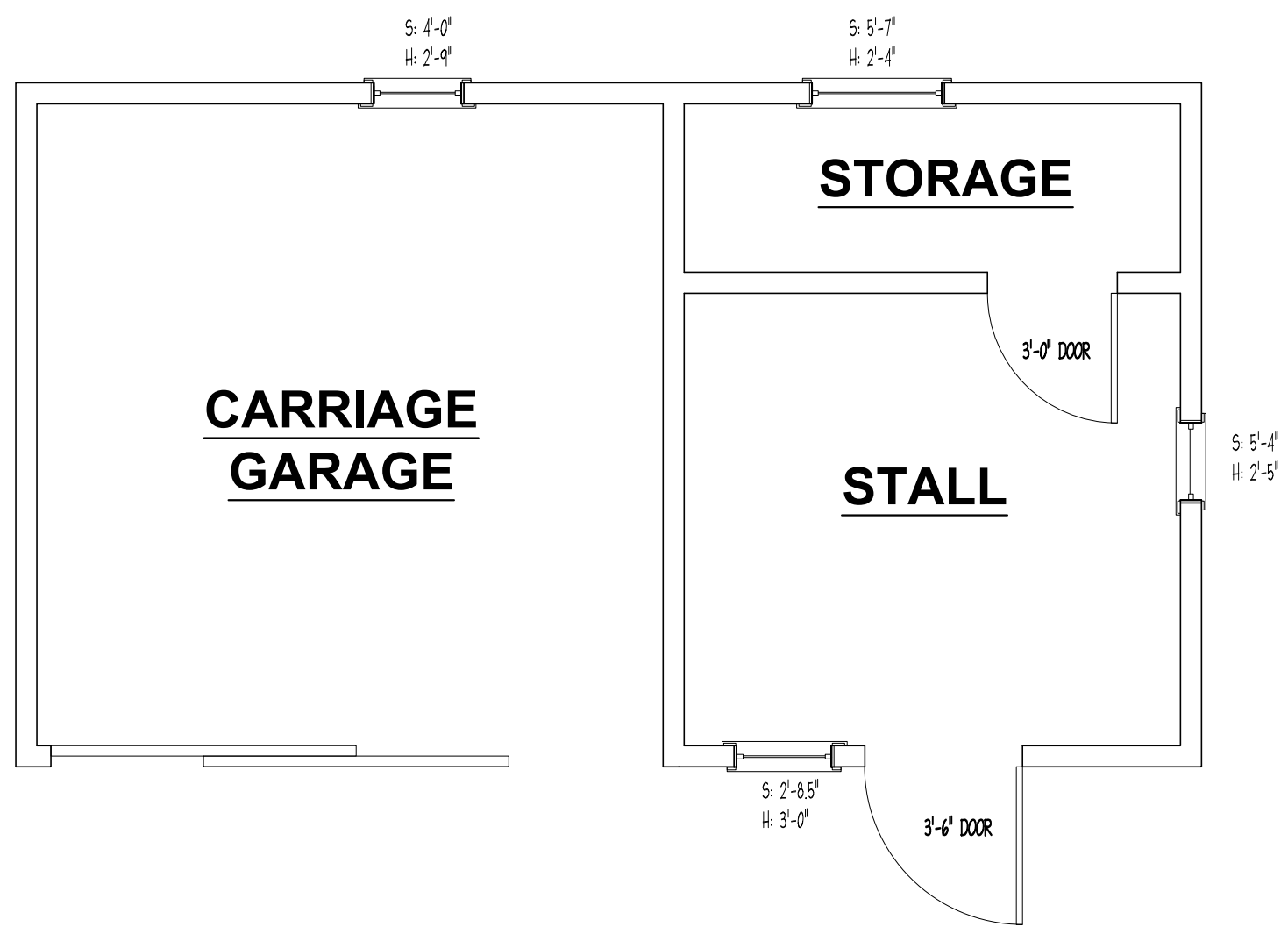
RIGHT SIDE ELEVATION

SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"



EXISTING BARN PLAN

Total: 458 sq. ft. SCALE: 1/4" = 1'-0"

226 E LEE STREET
Warrenton VA 20186
Drawings by: LLB Design
EXISTING SQUARE FOOTAGE

Vicinity Map – Street View



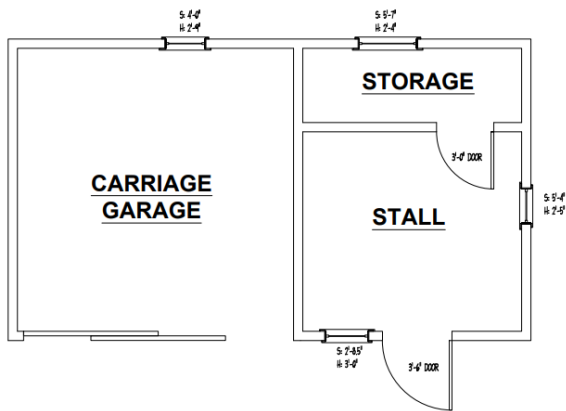
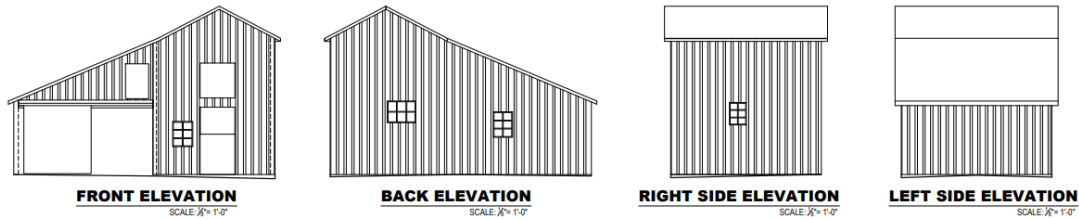
Photos:







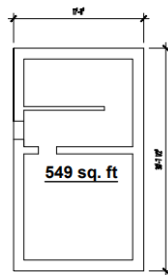
Plans:



EXISTING BARN PLAN

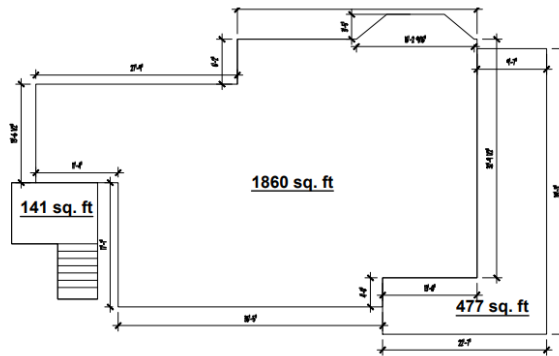
Total: 458 sq. ft. SCALE: 1/4" = 1'-0"

226 E LEE STREET
Warrenton VA 20186
Drawings by: LLB Design
EXISTING SQUARE FOOTAGE 2



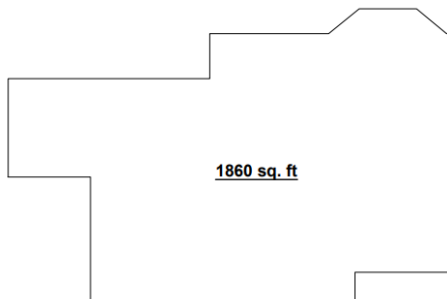
BASEMENT LEVEL PLAN

SCALE: 1/8" = 1'-0"



EXISTING MAIN LEVEL PLAN

SCALE: 1/8" = 1'-0"

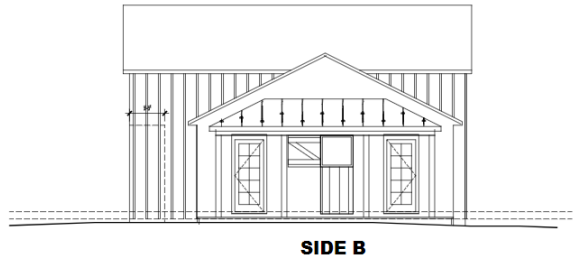
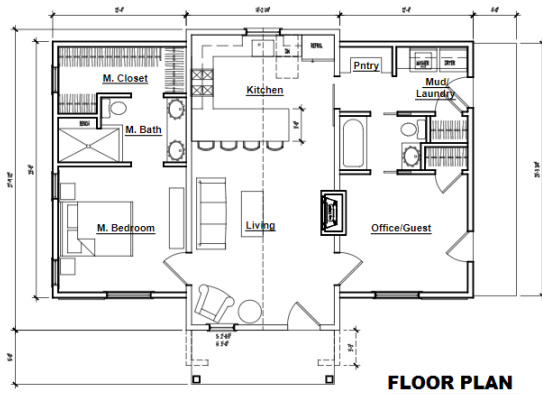


EXISTING HOUSE SQ FT.

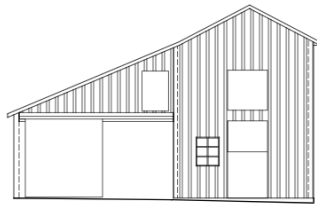
Cellar:	549 sq. ft.
Main Floor:	1860 sq. ft.
Porch:	477 sq. ft.
2nd Floor:	1860 sq. ft.
Total:	4746 sq. ft.
Deck:	141 sq. ft.

226 E LEE STREET

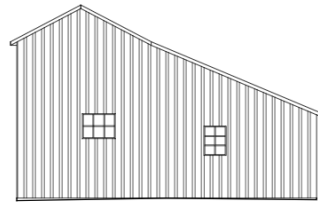




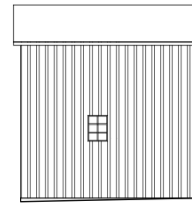
226 E LEE STREET
Warrenton VA 20186
Drawings by: LLB Design
SCHEMATIC PLANS



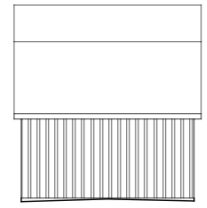
FRONT ELEVATION
SCALE: 1/4" = 1'-0"



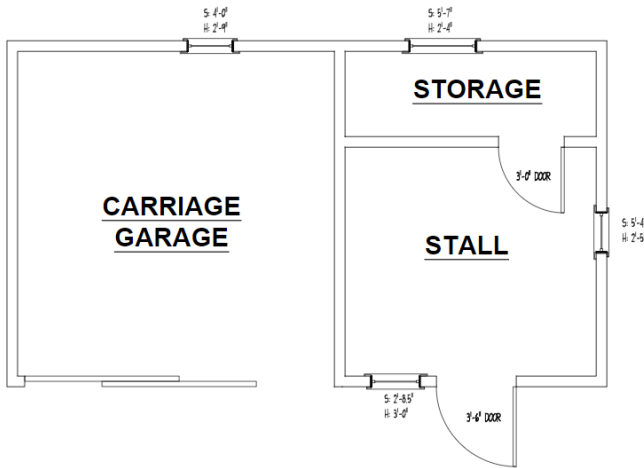
BACK ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



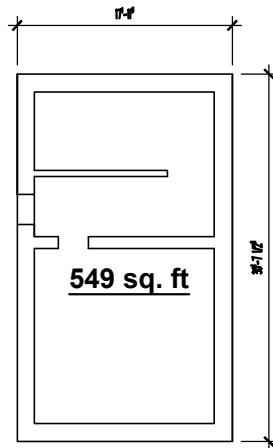
LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



EXISTING BARN PLAN

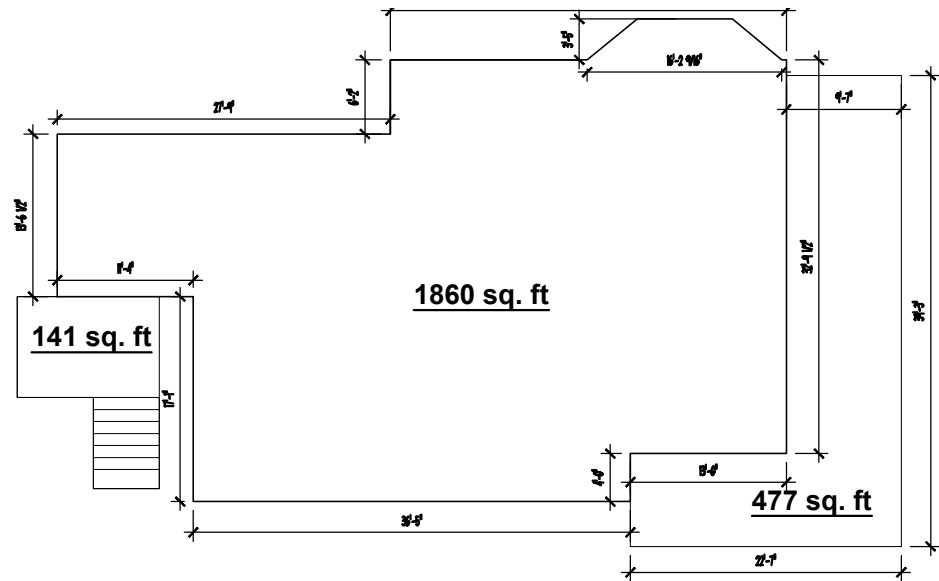
Total: 458 sq. ft. SCALE: 1/4" = 1'-0"

226 E LEE STREET
Warrenton VA 20186
Drawings by: LLB Design
EXISTING SQUARE FOOTAGE 2



BASEMENT LEVEL PLAN

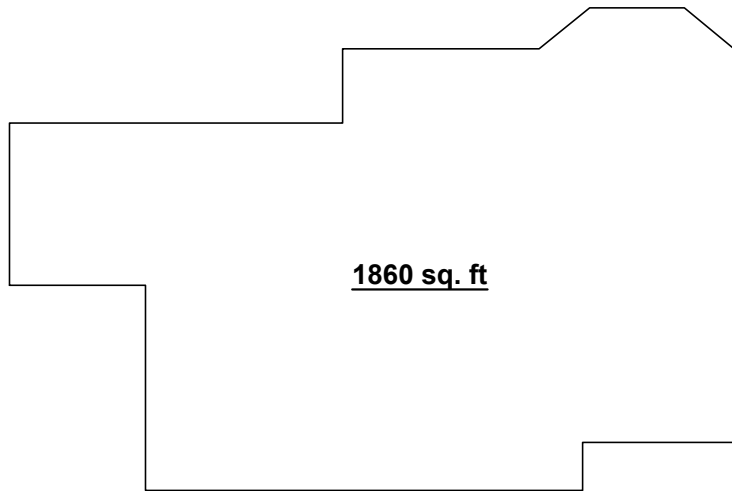
SCALE: 1/16" = 1'-0"



EXISTING MAIN LEVEL PLAN

SCALE: 1/16" = 1'-0"

Item 8.



EXISTING UPPER LEVEL PLAN

SCALE: 1/16" = 1'-0"

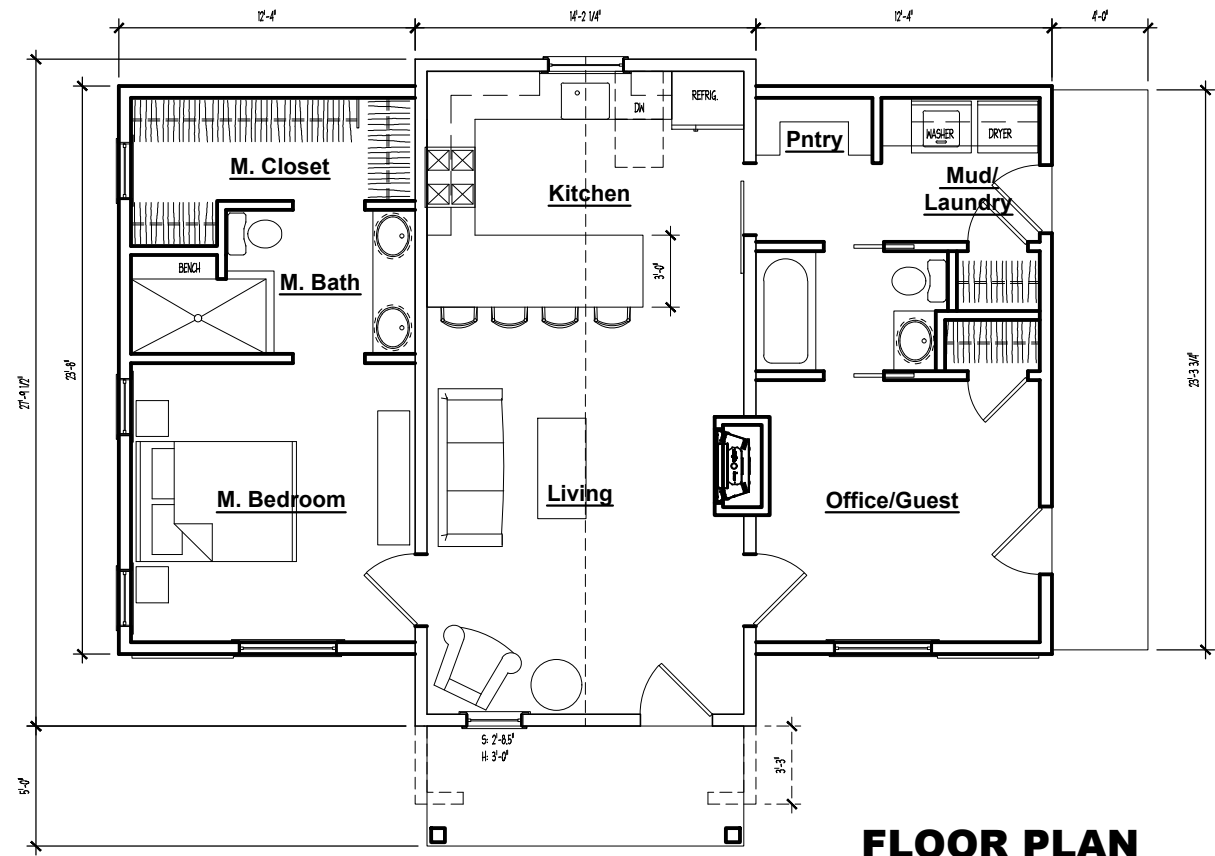
EXISTING HOUSE SQ FT.

Cellar:	549 sq. ft.
Main Floor:	1860 sq. ft.
Porch:	477 sq. ft.
2nd Floor:	1860 sq. ft.
Total:	4746 sq. ft.
Deck:	141 sq. ft.

226 E LEE STREET
Warrenton VA 20186

Drawings by: LLB Design

EXISTING SQUARE FOOTAGE

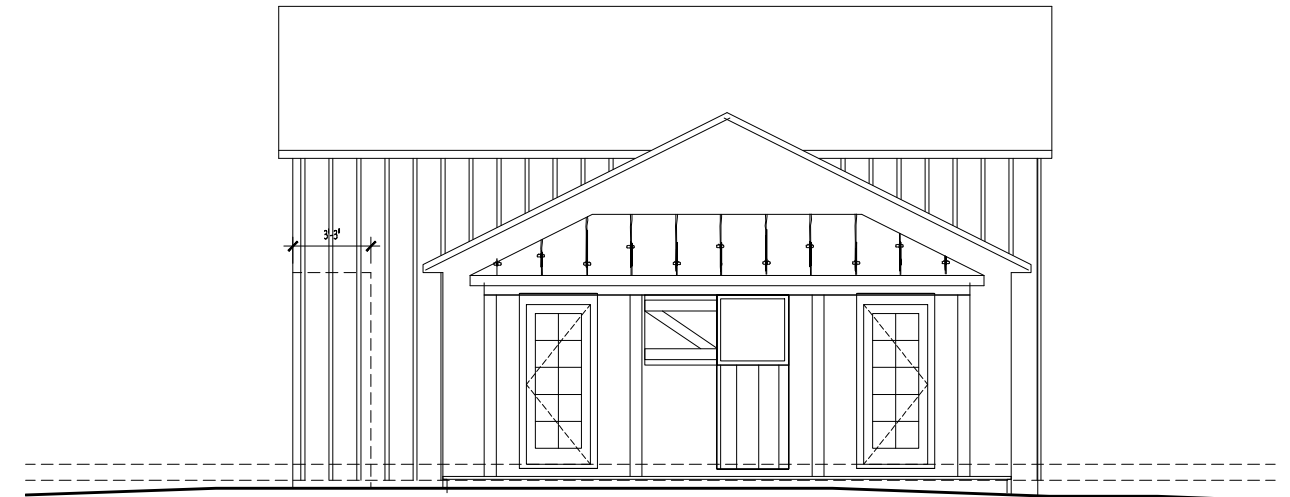


FLOOR PLAN

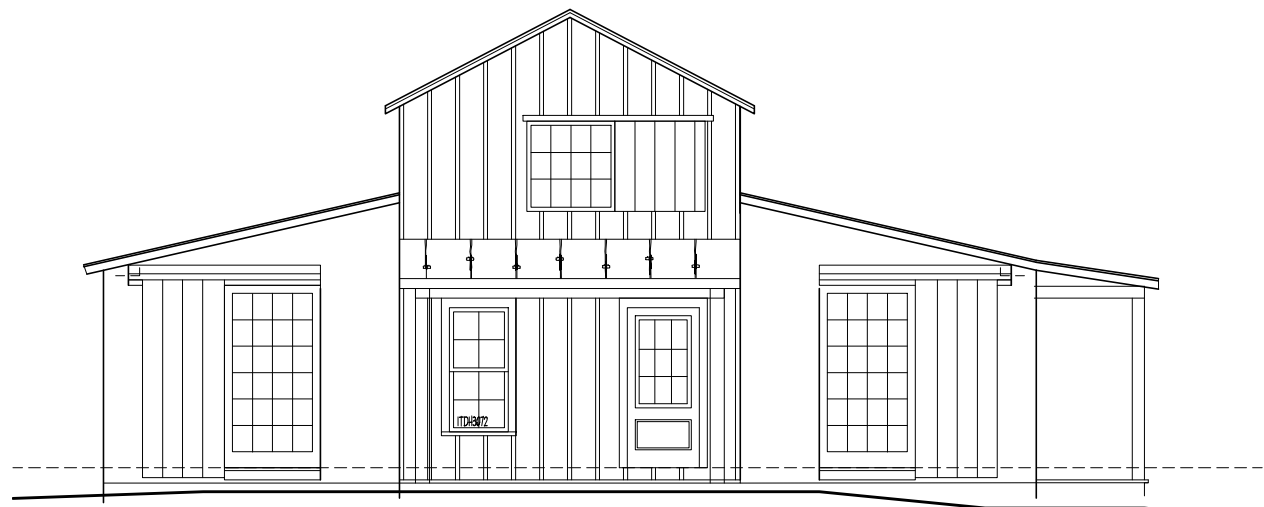
FINISHED : 978 SQ FT
 FRONT PORCH : 65 SQ FT
 SIDE PORCH : 83 SQ FT
 ALT FRONT : 46 SQ FT
 TOTAL : 1177-1186



FRONT B



SIDE B



FRONT A



SIDE A

226 E LEE STREET
 Warrenton VA 20186
 Drawings by: LLB Design
SCHEMATIC PLANS



TaxParcel_1K
Encumbrances_1K

226 E LEE STREET
Warrenton VA 20186
Drawings by: LLB Design
SITE PLAN